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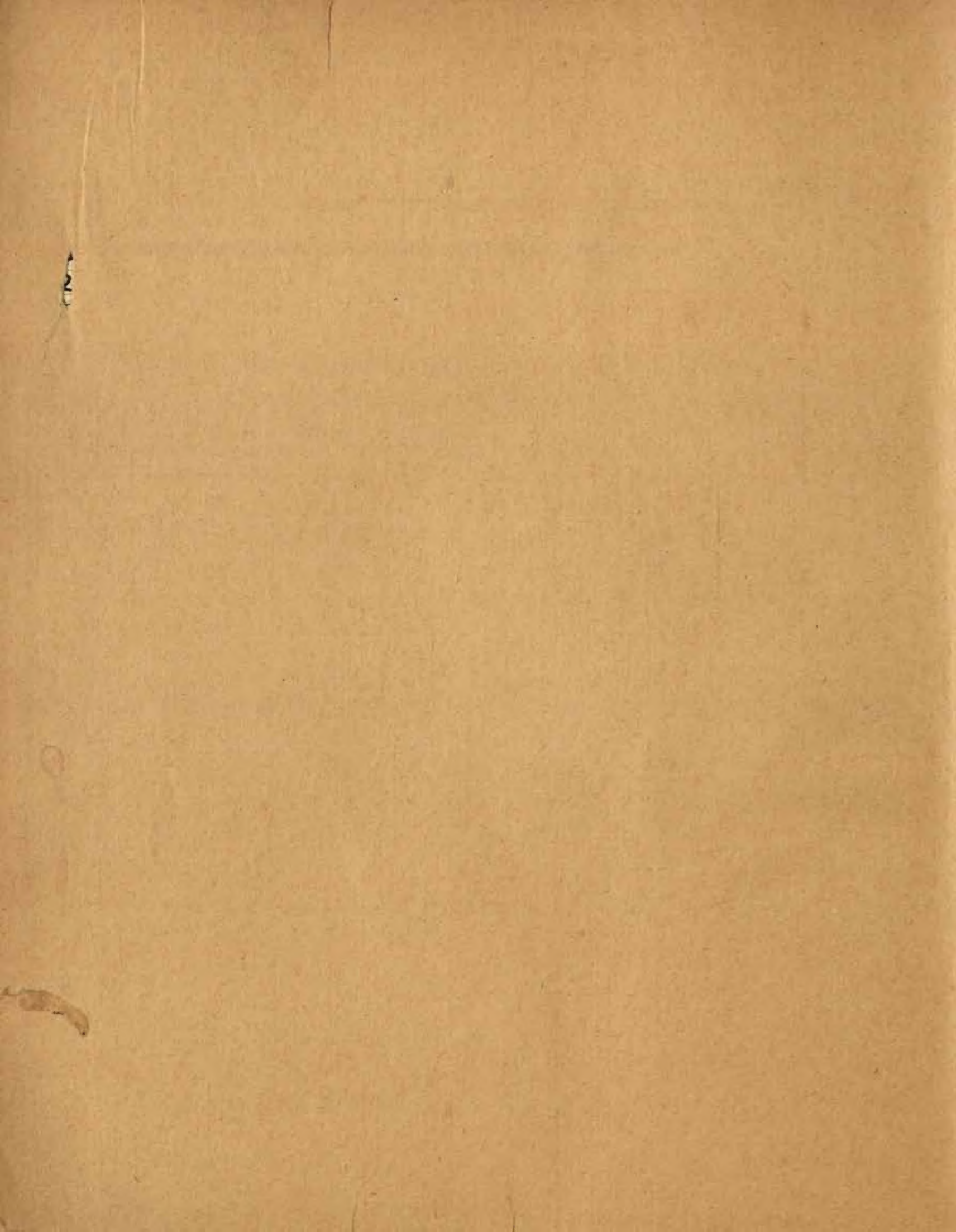
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ARCHAEOLOGIA
OR
MISCELLANEOUS TRACTS
RELATING TO
ANTIQUITY



ARCHAEOLOGIA
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MISCELLANEOUS TRACTS
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ANTIQUITY

PUBLISHED BY THE
SOCIETY OF ANTIQUARIES OF LONDON

VOLUME LXII

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SECOND SERIES: VOLUME XII



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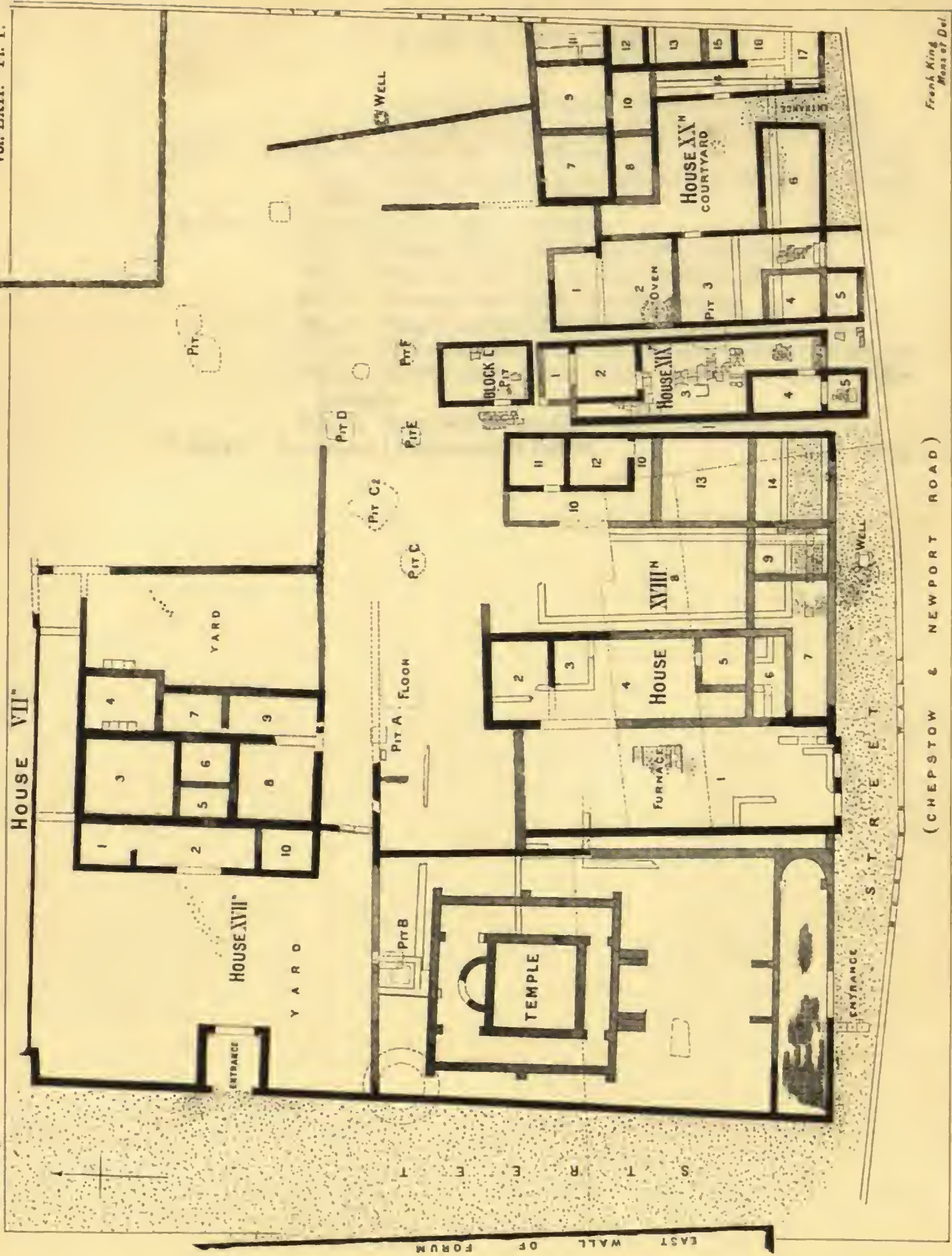
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CAERWENT. PLAN OF TEMPLE AND HOUSES XVII, XVIII, XIX AND XX.

Published by the Society of Antiquaries of London 1870.

ARCHAEOLOGIA

OR

MISCELLANEOUS TRACTS

ETC.

I.—*Excavations at Caerwent, Monmouthshire, on the Site of the Romano-British City of Venta Silurum, in the year 1908.* By THOMAS ASHBY, Esq., D.Litt., F.S.A., ALFRED E. HUDD, Esq., F.S.A., and FRANK KING, Esq.

Read 14th January, 1909.

THE excavations of 1908 began on 15th June, and were continued until 6th November, under the direction of Messrs. Ashby, Hudd, and Jones, assisted by Mr. F. King as architect.

They were entirely carried out in the orchard and gardens which now occupy the *insula* to the east of the forum, immediately to the north of the high road. House no. VII x, which was excavated in 1906,¹ occupies the northern portion of this *insula*.

The site was very largely made ground, and had been previously occupied by a number of pits.

HOUSE no. XVII x.

To the south of House no. VII x lies a small house, which we have called House no. XVII x. Its plan (plate I) closely resembles that of House no. III x,² consisting like it of a range of rooms running north and south, with a narrower range on each side of them; Room 4, at the north end of the east range, being somewhat wider than the rest.

The house had been a good deal destroyed both in ancient and modern times, some of the walls having been dug out for building material. On the west side of Room 3 were strong traces of burning. Here, on a mass of *débris* and blackened earth, lay fragments of two sandstone slabs, 1 $\frac{1}{8}$ inch thick, and measuring altogether about 2 feet 6 inches by 1 foot 10 inches. In Room 4 lay a similar fragment, also

¹ See *Archæologia*, lx. 451.

² *Archæologia*, lix. pl. xi.

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on *débris*, and of about the same size as the other two together. The floors have in some places disappeared.

Room 3 has its walls preserved on all four sides above the level of the concrete floor, and of the slabs in Room 4 and to the east of it. It is not certain where the entrance was, whether it was by steps, or in the south-west corner of the room, from Room 5.

In the south-west angle of Room 2 a small portion of white plaster was still *in situ* on the wall, and in working along the wall between Rooms 1 and 3 a considerable amount of ordinary black pottery was found. Along the wall between Rooms 3 and 4 a weaver's bone comb was discovered, and adjoining the west wall of Room 4 were fixed four sandstone slabs each about 7 inches thick and 2 feet 1 inch square. A similar line of slabs was found outside the east wall of this room (see plan, plate I). In both cases, no doubt, the slabs were used as steps forming the entrance to Room 4 from the east and from Room 4 into Room 3: only in the latter case there must have been another step up, as the west wall of Room 4 was preserved to a height of 1 foot above the slabs.

Near the east wall of Room 4 a piece of the bottom of a Samian bowl with a circular floral stamp was found, and with it coins of Constantine I and Valens. This only goes to show, what has already been noticed at Caerwent, that owing to the site having been continually inhabited, and ransacked for building material, the chronological order of the strata has been much disturbed, and that the chronology is only certain where pottery is found under floors. This was also the case in Room 8, where 2 feet down a coin of Claudius Gothicus was found, with a piece of second-century Samian. Coins are apt to work their way downwards, worms assisting their progress. At 2 feet 6 inches below grass level on the north side of Room 8, and 3 feet below on the south side, was a concrete floor with fragments of plaster in it, and a burnt layer on top. Below this floor, and 4 feet below grass level, a piece of second-century Samian was found.

The small rooms 5 and 6 occupy the middle of the house.

On the west side of Room 5 there was plain white plaster *in situ* to a height of 2 feet above the floor level. The plaster was 1½ inch thick, and finished with a quarter-round moulding as skirting on the floor. The floor was of concrete, rather perished, and some 4 to 6 inches below the threshold stone of the room. A small brass of Trebonianus Gallus (A.D. 251-254) was found on this floor. Between Rooms 5 and 6 the wall is broken away for about 3 feet, and there may have been a doorway here. These two rooms were accessible from one another, and Room 5 could be entered from Room 3, but neither had any well-defined entrance southward into Room 8. There was no access westward into Room 2; indeed, the western range of rooms, nos. 1, 2, and 10, seems to have been shut off from the rest of the house.

Room 2 was entered directly from the yard, and Rooms 1 and 10 from Room 2. Room 7 was probably entered from Room 4, and Room 9 from Room 7. Whether Rooms 7 and 9 had any entrance from the east, and whether Room 9 led into Room 8, must be treated as doubtful.

In Room 9 a fragment of a Kimmeridge shale disk and some brightly coloured (pink, green, and yellow) plaster were found.

To the east of the house is a yard with rough pitching about 1 foot 6 inches below grass level. The yard is surrounded by walls on all sides, and was probably entered from the east. Its north wall has two cross walls connecting it with House no. VII x. The foundation of another wall was found running north from the north-west angle of Room 3. There is also a yard on the west of the house, roughly pitched, and bounded on the west by the wall which follows the eastern edge of the street.

The northern portion of the wall is shown in the plan of House no. VII x, already published in *Archæologia*,¹ and there wrongly attributed to the latest period of the house. As a matter of fact it has been since ascertained that the portion running eastward (and therefore the whole wall) is earlier, and not later, than the south wall of Room 20 of House no. VII x. This portion of the wall originally ran right up to the south-west angle of the earliest building of House no. VII x and was broken away when it was extended westwards. This explains the facts (1) that it forms a right angle with the west wall of the first date of this house, and (2) that instead of joining House no. VII x at the south-west angle of the building of the third date it runs on a little further east and is then broken away.

The yard west of House no. XVII x is entered from the street by a gateway 9 feet 3 inches wide; this leads into a space 12 feet 6 inches square with another gateway on the east. The socket hole for one of the gates is still preserved in the stone on the north side of the east gateway.

No doubt here, as probably at the entrance to the forum, there was a porch. Red and yellow plaster fragments were found here.

On the south the yard is closed by the boundary wall of the temple (see below), and on the east by House no. XVII x itself. The space between House no. XVII x and the temple boundary wall prolonged eastward is closed, opposite the south-west angle of Room 8, by a short piece of wall and a doorway. The threshold stones of the door are still preserved *in situ*. It is, however, doubtful if one of these blocks originally served as a threshold stone; the groove in it may have supported another block placed endwise.

¹ Vol. lx. plate xlii.

THE TEMPLE

The building to the south of House no. XVII N, occupying the ground between the latter and the high road, was next excavated, and proved to be one of the most important and interesting structures yet found at Caerwent. There can be no doubt that it is the remains of a Roman temple, and although the building has been destroyed nearly throughout to below floor level, and has been used as a stone quarry by the builders of the houses and garden walls in the neighbourhood, enough remains to enable the ground-plan to be restored fairly completely.



Fig. 1. The Temple, from the south-east.

It greatly resembles the temple found in the beginning of the last century by the Hon. and Rev. W. H. Bathurst, and all too briefly described by him in his *Roman Antiquities of Lydney Park, Gloucestershire*.¹ The ground-plan of this Lydney temple, as given by Mr. Bathurst (plate iv c), is very like ours at Caerwent, but the latter is much smaller. The Lydney building measured about 93 feet by 73 feet, and the *cella* about 60 feet by 30 feet.

The Caerwent temple consists of a rectangular *cella*, 20 feet by 19 feet 6 inches, with an apse in the middle of the north side (fig. 1). There are pilasters at the north and south ends of the east and west walls, which balance the pilasters

¹ London, 1879.

in the surrounding wall of the *podium*. This wall has buttresses at the ends of the north and south sides and in the middle of the east and west sides, and is sufficiently far away from the walls of the *cella* to leave plenty of space for an ambulatory completely round it (see plan, plate I). Running south from the south side of the *podium* are two short walls symmetrically placed, and forming the sides of the entrance to the temple across an open space¹ from a room with a tessellated floor which occupies the whole of the south front of the temple area.

This is bounded on the south by the high road; on the west by the road running north and south to the east of the forum; on the north by the yard of House no. XVII N, and on the east by the building we have called House no. XVIII N. The enclosed temple area measures 110 feet from north to south, and 63 feet from east to west.

All the walls of the temple are massive and well built.

The *cella* and its *podium* occupy the northern portion of the temple area, but are not placed quite symmetrically in it, the outside boundary walls not running parallel with the walls of the *podium* (see plan). This is probably due to the fact that the former in part belong to an earlier period (see below).

Careful examination of the interiors of the *cella* and the *podium* has not yielded much except miscellaneous *débris*, as though they had been purposely filled up to form a floor level which has almost entirely disappeared, except on the south side of the *podium*. The natural bottom was reached 5 feet below the grass level, and the walls ran down to this depth to ensure proper stability. A few



Fig. 2. Bronze serpent-head ornament found in the Temple. †.

old red sandstone *tesserae* were found in the *cella* and its apse, close to the surface of the ground, and lower down in the apse a few pieces of window glass and of coloured plaster, red, white, and yellow. At 5 feet down a coin of Victorinus and one of Gallienus were found; also a silver one of Alexander Severus.

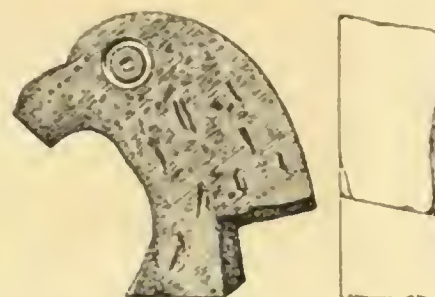


Fig. 3. Bird's head of carved bone found in the Temple. †.

To the east of the *cella* a small bronze serpent-head ornament, about 2½ inches long (fig. 2), was found 3 feet below grass level; also buried in front of the apse a dog's skull, and a bird's head in carved and polished bone (fig. 3).²

¹ A later pit, roughly rectangular, and 6 feet in depth, has been formed in mediæval or modern times on the west side of this space.

² These relics are not conclusive, but like the Lydney temple this one may have been dedicated

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In the space between the south wall of the *cella* and the south wall of the *podium*, and in a line with the entrance, a cement flooring resting on a concrete foundation was found on a level with the tessellated floor of the entrance hall (see below). This is the only part of the pavement of the *podium* which is preserved.

The long room which occupies the south front of the temple area has an apse at its east end, and is paved with old red sandstone *tesserae*, roughly laid. Only one side of the entrance from the street to this room was preserved, and three large blocks of sandstone were still *in situ* outside at the road level, and one inside on a level with the floor. These no doubt formed part of an architectural feature at the doorway of this important building.

There are a few traces of earlier walls within the area of the temple, which are perhaps contemporary with the external boundary walls of the temple area on the north and west. These walls are very low down, only one or two courses being preserved, and surrounded a pit which we have called Pit B.

Over the east wall and partly over the pit there was found a hearth made of sandstone blocks. Below this hearth, 4 feet down, was found some Samian pottery, one a straight-sided bowl (Dragendorff 30),¹ and pottery was found almost all the way down. The bottom of the pit was reached 13 feet below grass level, and 9 feet 6 inches from the top of the walls surrounding the pit. To the west of the pit was pitching at a very low level round the foundations, and between the wall bounding the pit on the south and the north wall of the *podium* was a mass of masonry, filling up the space between the walls. Both these features are probably to be attributed to the instability of the ground, and may be considered as precautionary measures.

Running east from near the middle of the east wall of the *cella* is another early foundation which runs under the east wall of the *podium* and the east boundary wall into the line of the north wall of Room 1 of House no. XVIII n. It looks as if the east boundary wall for some distance southwards from this point is built on a wider and earlier foundation. It also appears that the whole of the temple, as it at present stands, is of a later date than these early walls running east under

to a health deity, possibly Aesculapius, or Hygeia. The serpent's head is too heavy to have formed part of a bracelet or brooch, and it has been suggested that it may have been part of a statuette of Hygeia, who was sometimes represented with a serpent twined around her body. A stone effigy of the Romano British period, with remains of a serpent coiled round the bust, was found some years ago a few miles east of Caerwent, but has not yet been described or illustrated. The Caerwent serpent differs from any other known to me from Roman times in having a distinct triangular crest on the top of its head. [A. E. H.]

¹ The elements of decoration are as follows: In the first vertical division Déchelette 34 (seahorse to right), under it a garland; under this D. 969 (quadruped, hare?, to left). In the second vertical division a medallion with a scene; under it D. 1035, 1009 (bird to left and bird to right). The pattern is then repeated: the seahorse apparently recurs (to left) and under it is D. 927 (dog to right).

its eastern boundary wall. The fragments of walls between the temple and House no. XVIII π may belong to this early building, or to another house of the same date.

There were remains of some later constructions belonging to post-Roman times at the north-west angle of the temple area. Here over the north-west corner and partly over the Roman street was found a circular building 11 feet in diameter, with walls 3 feet 6 inches thick. A portion of the slab floor was still *in situ*, well above the level of the Roman street. On pulling down the portion of the circular wall over the north-west angle of the *podium* the buttress was discovered, and several of the sandstone blocks which had formed part of the buttress had been used to build the wall of the circular building. On clearing out the chamber a few bones of pig, fish, and chicken were found. The structure is no doubt post-Roman, and may have been the foundation for a circular stone culverhouse similar to several of mediaeval date which still remain in the West of England and South Wales; or it may have been a pigeon-house belonging to Caerwent House, which was, a century since, the Caerwent Inn, a posting-house on the London road where several coaches stopped each day on their way through.

Just south of this round building a considerable quantity of dark red quarter-round skirting and other coloured plaster was found, 3 feet below grass level. It is uncertain to which of the walls this plaster belonged. Just here the west wall of the *podium* has been reconstructed in quite modern times, and the apse had been partly destroyed by the insertion of a modern saw-pit. We have removed the pit and roughly repaired the apse, it having been decided by Viscount Tredegar to leave the whole of this interesting building permanently open.

The street west of House no. XVII π and the temple area increases considerably in width as it goes northward; it is 24 feet 6 inches in width where it joins the main east and west road, and 36 feet 2 inches wide opposite the entrance into House no. XVII π .

HOUSE no. XVIII π

House no. XVIII π occupies the site just east of the temple area. Originally it seems to have consisted of three distinct buildings, probably shops, having a frontage line on the street, as shown by the early walls running through Rooms 7, 9, and 14 on the plan, and contemporary with the line of large flat kerbstones and street layer found in those rooms.

Whether at this stage any building adjoined the temple area it is difficult to say, but there are traces of an ancient building as shown by the early walls just inside the entrance from the street, and also by the foundations of walls passing under the east wall of the temple area. The second stage of the buildings on this site seems to have been where the middle and eastern blocks were extended

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over the footpath and street. This extension is shown by the early walls under the later front wall and over the slab kerbing and bases, which will be described later. The last stage was when the several buildings were combined into one large house, and the long wall bordering the street with another to the north, which formed the north side of Rooms 6, 9, and 14, were built.

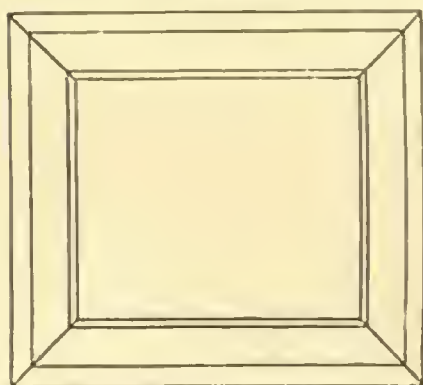


Fig. 4. Plan (1) and section (2) of one of three bases from the first stage of the eastern portion of House no. XVIII s.

We will begin with the first stage, of which not much remains. The flat kerbstones in Rooms 7 and 9 are very similar to those found on the village green in 1903.¹ The drain running north at the east end of these slabs is curious. Originally it must have served the purpose of draining the narrow space between Rooms 8 and 13, *i.e.* the space between the two buildings which would have had a considerable amount of rain water falling into it.

The early wall through Room 14, forming the south-eastern angle of the block, has a curious rebate at its western end, as if it had been intended to receive the wooden frame for a shop front.

Under the south-eastern and south-western angles of this room, and in the middle of the south wall, were found three large sandstone bases 1 foot 6 inches high and 1 foot 3 inches by 1 foot 6 inches on the top (Fig. 4); the eastern one is under the south-east corner of Room 14 and cannot be shown. These bases stood on other rough sandstone blocks, which in turn were on a rough stone foundation.

The middle base was best preserved and has been removed to the Museum, but it was found impossible to get out the lower blocks owing to their being so soft from damp and age. These bases can only have carried a porch or awning in front of the shop; there was plenty of room for foot passengers to pass between them and the shop front.²

The remains of the second stage of House no. XVIII s are more scanty than those of the first stage.

All that we can identify with certainty are the walls in outline under the front wall and the wide wall running north and south in Room 9.

¹ *Archæologia*, lix. 117 and pl. xi.

² On the wall south of the eastern courtyard of the house was found a gold coin of Elagabalus Cohen, 2nd Ed. no. 194) in good condition. This is the first gold coin we have found at Caerwent.

The whole of this building had been much destroyed owing to the erection of a malt-house on the site, all the stone required to build the malt-house being taken from the Roman walls underneath. The northern portion of the building suffered most in this respect.

The space numbered 1 simply consists of the entrance, which had a double doorway projecting 1 foot 6 inches in front of the general line of frontage to the street, the doors being 5 feet 6 inches wide. Just inside these doors was found a layer of rough stones very firmly packed and supporting a concrete floor on a level with the street surface. On the east side, 3 feet down, was found a fragment of figured Samian pottery (Dragendorff 37) with reversed stamp *MANNIO (Cinnami)*.

In the middle of this large space and inside the malt-house were two curiously shaped furnaces, consisting of two parallel rows of sandstone slabs, placed on end and paved with similar slabs, the whole showing considerable traces of burning.

To the south-west of these furnaces was a hard-rammed gravel floor. In the north-west angle of this area (Room 1) was a pit or rubbish-hole, 7 feet deep, containing only broken pottery.

Further to the south the west face of the west wall of this room was composed of long ashlar blocks in the lower part and of smaller stones in the upper part, and between the two was a continuous groove 6 inches high and 3 inches deep, the purpose of which is uncertain. On the east side there was no such difference in the face, which was uniform throughout.

Room 2 had a concrete floor about 6 inches thick and 1 foot 6 inches below the grass level, upon which was a coin of Antoninus Pius. About 8 inches below the floor is a layer of rough stones and a bedding of mortar. Below this concrete floor two earlier walls of different periods were found, running north and south in the western portion of the room. There do not seem to be any traces of a floor in connexion with either of them, and they may have been simply boundary walls to a pit to the east.

Under the concrete floor to the west of the uppermost, *i.e.* the westernmost, of these cross walls was found the blade of an iron billhook with traces of the wooden shaft in the socket; also on both sides of the cross wall some pieces of Samian (Dragendorff 37) and a piece of a bowl like Dragendorff 32, but with the lip less pronounced (a common type here). Fragments from one side of this earlier wall fitted one from the other side. Further to the east the floor had given considerably, the room having apparently been built over the site of a pit. A large quantity of pottery, including a comparatively small amount of figured Samian ware, was found in this pit. About 4 feet down, just under the large stones serving as a foundation to the floor, which had sunk here, two black pear-shaped pots of

Upchurch ware, with scored intersecting lines forming lattice patterns (one of the commonest forms at Caerwent), were found, one broken lying sideways, the other entire standing straight up. At 6 feet down was found a coin of Constantine Junior, in fairly good condition, and near it, besides some Samian ware, including one small piece of Dragendorff 29, and several of Dragendorff 37, was a piece of a thin green glazed bowl with finely ribbed sides. At 8 feet 6 inches below the grass level the dish-shaped bottom was reached, formed of hard red clay.

To the south of Room 2 was a passage on the west, with no floor preserved, and on the east the small square room 3, with a concrete floor 3 feet below grass level. To the south of it again was Room 4, also with a concrete floor at the same level, with considerable traces of burning upon it. This room extended right across the malt-house, and is bounded on the south by the small room 5, with another short passage as on the north. Within the area of the malt-house some fine figured Samian was found, from 1 foot to 2 feet 6 inches below the modern level, close to the foundations of the wall.

Room 5 was approached by a doorway from Room 4, but no trace could be found of any doorway into Room 6, or from Room 6 into Room 7.

Between the early and later walls in Room 6, on the east side of the room, was found the upper portion of a large amphora upside down and broken into a great number of pieces, and a little lower down a fine bronze brooch.

The space, Room 8 on plan, most probably served as a courtyard in the last stage of the building. In the north-west angle were found, at 2 feet 6 inches down, fragments of black pear-shaped pots (two whole, or nearly so), and 3 feet 6 inches down a perfect black pear-shaped pot lying on its side at the level of the foundation of the wall.

No trace of doorways could be found in Rooms 9, 13, or 14.

The northern angle is broken away by a later wall crossing it at an angle, and by a modern slab-covered drain from the malt-house pit.

The east wing of the building was much better preserved. In the northern portion there was a corridor, 10 on plan, which turned east at its southern end. From the corridor Rooms 11 and 12 were entered, Room 11 on the west side and Room 12 on the south. Both these rooms had good concrete floors. On the threshold of Room 12 were found five coins and a piece of a figured Samian bowl (Dragendorff 37) with a tree upon it not corresponding with any of those figured by Déchelette. Of the coins two were much worn and burnt first brasses (possibly Vespasian and Hadrian), one a second brass (illegible), a silver denarius of Vespasian and one of Hadrian.

Under the concrete floor of the corridor south of Room 12 were found a mussel shell, a piece of Samian cup with ivy leaves on the edge (Dragendorff 35),

and a piece of a figured bowl (Dragendorff 37) with medallion and the figure of a cock (Déchelette 1009). The west wall of the corridor 10 had nearly all been destroyed.

Very few finds were made in the southern portion of this wing. Over the two walls west of Room 13, the half of a very large lower stone of a quern was found. The stone was conglomerate, and measured 2 feet 5 inches in diameter. In the room, and against the west wall, was a perfect lower quern stone and a quantity of fragments of bright yellow plaster on a level with the early foundation. Between the west wall of Room 13 and the early east wall of Room 8 a large quantity of broken pottery and a few bone pins were found. Just south of the north wall of Room 14 the cap of a small column came to light (fig. 5).



Fig. 5. Capital of column from eastern portion of House no. XVIII s. 1.

HOUSE NO. XIX s

In the narrow space of ground between House no. XVIII s and House no. XIX s a considerable amount of pottery was found at various depths, from 1 foot below grass to 5 feet down. The same remark applies to the space between House no. XIX s and House no. XX s. The pottery lay between the foundations, and was probably part of the rubbish thrown in to cover them. At 4 feet below grass two slabs of old red sandstone on edge were found.

House no. XIX s consists of a long range of five rooms, having a frontage of 21 feet 6 inches to the street.

Rooms 1 and 2 do not occupy the full width of the building, and appear to be of later formation, Room 1 being added to, and Room 2 cut out of Room 3. The

walls of Room 1 are not bonded into the main house wall, and the west and south walls of Room 2 are not bonded into the outside walls.

In the north-east corner of Room 1 two perfect pots were found, standing in the corner and covered with a sandstone slab; one was a small reddish-yellow bottle $4\frac{1}{2}$ inches high, the other a larger black pear-shaped pot $7\frac{1}{4}$ inches high,



Fig. 6. Wall between Houses nos. XIX and XXx showing sinkage over an ancient pit.

with scored lattice pattern of Upchurch ware. The top of the black pot was level with the floor. A doorway, well marked on the east side, leads from Room 1 into Room 2.

In Room 2 six coins of Victorinus, Constantine, Valens, and Gratian were found together on the floor level, which is shown by the doorway into Room 3 and the slab paving of the latter. Here also was found a piece of bright blue frit for use on enamelled metal work.

¹ Similar frit has been found at Caerwent previously, which seems to indicate that the beautiful enamelled objects found on the site were probably made there.

The narrow space between Room 2 and the west wall of the house was paved with large slabs of old red sandstone, $1\frac{1}{2}$ inch thick, and 3 feet below grass level. This space or passage formed a part of Room 3 before Room 2 was cut out. Probably the whole floor of the house, except Room 4, from the street to the north wall between Rooms 1 and 2, was originally a paved courtyard, Room 5 being built over the street later.

In the middle of Room 3 was a fireplace formed of slabs set up on end, and against the south wall was another furnace of larger blocks, all much burnt.

In the east wall of the room were considerable signs of subsidence (Fig. 6), clearly showing that the wall had been built over a pit and that a considerable part of the building stands on made ground. The bottom of the pit was reached on each side of the wall, 9 feet down.

About one thousand small coins were found in Room 3; they extended all over its area, but were especially numerous in the north-east part of the room near the wall. Some iron objects were also found. This small hoard consists almost entirely of minims, chiefly of Valentinian II., Theodosius and his two sons, those of Arcadius being, as usual at Caerwent, much more numerous than those of Honorius. There were also a few of Gallienus, Tetricus, Constantine I. and his family, Maximus, Victor, and one of Eugenius, mostly showing considerable wear. We may therefore date the deposit of the hoard to the first half of the fifth century A.D. Some of the coins and the whole of the room showed considerable traces of burning.

Room 4 was reached from Room 3 near the main entrance from the street. On the west wall of Room 4 some pinkish-brown plaster still remained.

Room 5 was reached from Room 4, and was paved with large sandstone blocks, about 2 feet 6 inches below grass level. A foot below these blocks was a rubble and concrete floor, probably the street, over which it was extended, and the bottom was reached 3 feet 6 inches lower. Room 5 was added later, as the straight joint at its north-west and north-east corners shows.

The main entrance to the house from the street was through a small space paved with slabs and a large doorway 5 feet wide into Room 3. The threshold stone was a 6-inch step above the slab paving of the room.

BLOCK L N.

This is an oblong building consisting of a single room to the north of House no. XIX N and separated from it by a narrow space only 1 foot in width, but it does not appear to have ever formed part of the house.

The room was paved with old red sandstone flags and has a yellow sandstone threshold *in situ* on the west side, opening upon an area also paved with old red sandstone flags. The flags outside the building had, however, sunk, and inspection revealed a round pit underneath them, which contained a considerable quantity of ordinary pottery fragments. The bottom of the pit was reached 10 feet below grass level. Under the paving a fragment of the bottom of a riveted Samian pot (Dragendorff 31) with the stamp CARVSSA was found.

Inside the block a lower millstone and half an upper one were found, and some red and yellow wall plaster. Just outside the east wall was a dark grey pear-shaped pot found standing upright, 1 foot 2 inches below the grass level. The pot was covered with an old red sandstone slab and contained the bones of a child.

To the north of Block L x were found rubbish pits, D, E, E 2, and F on plan.

Pit D at the end of the south boundary wall of the east yard of House no. XVII x contained various kinds of pottery from 3 feet down; at 6 feet 3 inches a well-preserved cream-coloured jug was found 7¼ inches high, with one handle and a bulging body tapering to the foot, and at 6 feet 6 inches an amphora with the mouth downwards. The bottom half was gone and the neck broken off; on the side were scratched the letters ^{VII}ADG.

At 8 feet down besides pottery a well-preserved horse's skull and a skull of *bos longifrons* were found. The ox had evidently been poleaxed. The bottom of the pit of solid clay was reached at 9 feet 9 inches below grass level. Pit E, south of Pit D, was only 5 feet 9 inches deep, and nothing of note was found. Pit E 2 was 6 feet 6 inches deep, and contained nothing worth noting. Pit F just north of Block L x contained a pear-shaped pot with a handle and the fragments of a glass bowl; the bottom was reached at 6 feet 6 inches below grass level.

What original purpose the space north of House no. XVIII x served cannot be said: it may have been a garden.

The whole of the space had been much disturbed. A portion of the foundation of the early wall just north of the *podium* of the temple could be traced, but only the south side of it. At the end of the continuation of the north wall of the temple area eastwards Pit A was discovered. The wall was roughly broken off, so that the construction of the pit may explain the wall ending so abruptly. In the pit a coin of Tetricus was found at about 5 feet below grass level, and some Samian pottery at about 6 feet down. One piece, the bottom of a cup (Dragendorff 33), had the stamp CELSIANI · F on it. The bottom of the pit was reached 13 feet below grass level.

Nothing more was found until at 11 feet from grass level a small sandstone statuette of a goddess (fig. 8) seated in an arm-chair came to light. The type

of face is not unlike that of the head found in 1902,¹ though the face is somewhat flatter.

Just east of Pit A was a concrete floor 3 feet 9 inches below grass level, and off it came a coin of Constantine Junior. To the north-east of this floor an enamelled bronze stand was found.² East of the floor a deep pit, marked C on plan, was also discovered, and some interesting finds were made. At 5 feet 6 inches below grass level a coin of Victorinus and some pottery were discovered, and at 8 feet down a bronze brooch and a good deal of Samian ware. From 8 feet to 12 feet a bowl (Dragendorff 37) with Déchelette 219 (dancing girl) combined with

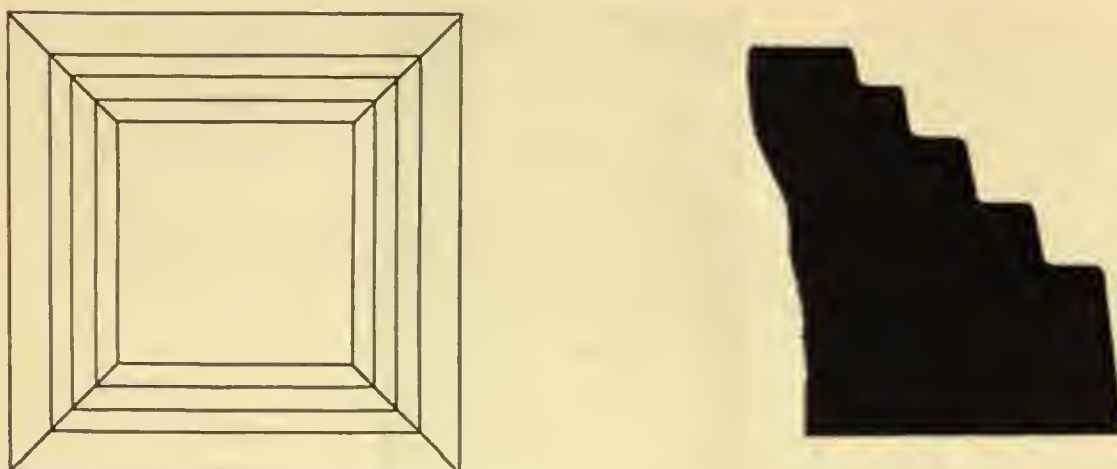


Fig. 7. Plan ($\frac{1}{4}$) and section ($\frac{1}{4}$) of small base from Pit C, north of House no. XVIII s.

191 (Venus and Adonis?). Part of the top stone of a quern was found at 11 feet down, and the other half at 12 feet. Samples of the mud were taken at 12 feet and 13 feet below grass level and sent to Mr. Lyell, who detected in them a considerable number of seeds.³ At 16 feet 3 inches down part of a large grey pear-shaped pot was found, and at 16 feet 6 inches a small base 8 inches in thickness (fig. 7).

From 18 feet to 20 feet down were found a piece of lead pipe, and some wood and rope, the latter continuing as far as 22 feet. Between 20 feet and 22 feet a fragment of a bowl (Dragendorff 37) with Cupid to right (Déchelette 236) was found. The bottom 2 feet 6 inches in diameter, in the hard clay, was reached at

¹ *Archaeologia*, lviii. 150.

² It is similar to one figured in the Catalogue of the Guildhall Museum, London, plate xiv. 65, and to one found in the south-west digging at Caerwent. Examples have also been found at Silchester.

³ These have been examined and identified by Mr. Clement Reid, whose report is given below.

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22 feet 9 inches below grass level. The pit had apparently been sunk for a well, but never used as such.

A spring was found in the side of the pit, about 15 feet below grass level, where the diameter was 3 feet 5 inches. The spring was very slight, and quite insufficient for a well supply. The pit was therefore never excavated to a diameter sufficient to allow of the insertion of the stone lining.

Pit C 2 to the north-east of Pit C was a large irregular opening. About 1 foot down, on the top, a coin of Tetricus was found; and from 4 feet to 7 feet down some pottery. At 9 feet down a perfect brooch with some more pottery.



Fig. 8. Sandstone figure of a seated goddess.

The sculptured head of a god found in the south diggings, the seated goddess (fig. 8) found in 1908, and a small "domestic" altar found in 1909, are all carved from local yellow sandstone, and are no doubt of local manufacture. The distinguished French antiquary, M. Espérandieu, to whom photographs of these Caerwent images were forwarded, writes of the goddess: "C'est de l'art indigène, si toutefois il est permis de parler d'art lorsqu'il s'agit de choses qui en sont totalement dépourvues. Les diverses régions de la Gaule Celtique nous ont fourni un grand nombre de monuments figurés, dont l'analogie avec celui de Venta Silurum ne me paraît pas contestable." M. Espérandieu also forwarded some illustrations of various Gallo-Roman sculptures from his great work *Recueil général des bas-reliefs de la Gaule romaine*, some of which are similar to our Caerwent deities. It may be mentioned that in the Musée Carnavalet, in Paris, there

is a stone torso of a man or god, with a square hole at the neck, into which the head, now missing, fitted, it being carved out of a different stone; no doubt our Caerwent god was similarly constructed, and the head was only spared because it was of no use to the lime-burners who destroyed the limestone body.

HOUSE NO. XX N.

The eastern portion of this block has not yet been excavated, and it is not certain whether all these rooms belong to one house or not. It may be taken as one house with a courtyard in the middle or as two houses having a common courtyard. In the space between Houses nos. XIX N and XX N a quantity of pottery was found, and a coin of Carausius.

Both wings seem to have had access to the courtyard, but only the western block, so far as we know at present, had direct access to the street. Both wings of the building show considerable signs of alteration.

The west wing consists of six rooms arranged somewhat like those of House no. XIX N. In the northern part of the wing the walls had been much destroyed, and nothing was found worth recording.

In the south-west angle of Room 2 a curious circular oven or kiln was discovered. It is 6 feet in diameter, and seems to have opened from the east. The kiln was constructed of sandstone blocks and very regularly paved with sandstone slabs. On the south side the blocks forming the wall distinctly show that the inside was domed or of beehive shape. The whole of the kiln has been very much burnt, and as the floor was only a few inches below the turf nothing remained to show for what purpose it had been used. It may have been a domestic oven.

Room 3 had an entrance direct into the courtyard to the east over a threshold 5 feet wide. A small rubbish pit was found just north of the earlier wall which crosses the room from east to west. The whole of the area of this room was evidently made up with rubbish to bring it to the general level. The southern part of Room 3 had direct access to the street through a porch similar to the arrangement in House no. XIX. The paved floor level, which partly covered one of the early walls, was two steps below the level of the threshold stone. Under this slab floor a considerable amount of pottery was discovered. The best piece was a large portion of a plain Samian pot. Bottom was reached some 5 feet 6 inches down. A perfect quern was found along the east wall of Room 3.

Rooms 4 and 5 are similar in plan to Rooms 4 and 5 in House no. XIX N;

Room 5, here also, being an addition at some later time. The bottom in this Room 5 was reached well below the foundations of the wall, and the filling contained pottery fragments right down to the bottom.

Room 6 forms the south boundary of the courtyard and appears to have been entered from it only, no trace of a doorway into Room 4 having been found. On the north side of Room 6 a coin of Maximianus was found, and just above the early foundation the lower jaw of a human skull, 3 feet 6 inches below grass level. On each side of the early foundation traces of pitching were found, that on the south being of the same structure as street material, which it most probably was. The east wall of Room 6 forms the west wall of the entrance to the courtyard from the street. Built into the south-east corner of the room was a block of sandstone with a hole 9 inches square and 3 inches deep in it, seeming to mark the place where the doorpost stood. On pulling down the later south-west corner of Room 17, on the east side of the entrance passage, a somewhat similar stone was found, with a hole 7 inches square and 3 inches deep. This must have been the eastern side of the original gateway. At a later time the entrance had been reduced in width by the construction of the later west wall of Room 17, which also formed the eastern boundary of the courtyard.

The gateway between Rooms 6 and 17 was paved with hard-rammed gravel and stones, extending right over the early wall, and on a level with the street paving outside.

On the west side of the courtyard, 3 feet down, a good second brass of Hadrian was found. The paving of the courtyard was the same as in the gateway, but on the north side another level was traceable underneath; the bottom was reached 5 feet 9 inches down, and pottery was found all through the filling. There seems to have been a way through the courtyard to the back of the house between Rooms 2 and 8; the passage way has a wall across it, but the wall is only one course deep and roughly built.

Of the east wing, or block, of the house practically only the walls remain, and very few finds were made.

The rooms 7, 8, 9, 10, and 11 in the north portion all had concrete floors preserved, that in Rooms 9 and 11 being especially good brick cement. The only possible trace of a doorway was from Room 9 to Room 10. The west wall of Room 11 was built over the concrete floor, and its south wall still had white plaster *in situ*. The concrete floor in Room 11 had a wide trench in it, as if at some time a wall had stood there and been pulled out. On the east side of the trench with its face against the concrete a considerable quantity of white plaster was found.

The wall between Rooms 12 and 13 had a later wall built partly on the north side of it. The later work was only one course deep on a rough foundation.

Rooms 13 and 15 had very little in them, and it was impossible to trace their eastern limits as here we had come to the boundary of Lord Tredegar's property.

Room 14, a corridor, had a doorway into the courtyard, and the early courtyard wall was found running right through it. At 5 feet 4 inches down a mussel shell and fragments of Samian pottery and yellow plaster were found.

The walls of Rooms 16 and 17 had been destroyed, a modern rubbish pit being found here.

The ground north of House No. XX was thoroughly trenched but very little was found. Two rough boundary walls run northwards from the east wing of the house, and on the east side of the easternmost a small well was discovered. The diameter was 2 feet on the top and the masonry started about 1 foot 6 inches from grass level. Water was reached at 14 feet down, and some bones and black unglazed red pottery came from this level. At 15 feet down was a perfect black pear-shaped pot, slightly cracked. The pot must have been thrown into the water or else it would have been smashed to pieces. Some more pottery fragments and a jaw-bone of an ox were found. The bottom was reached at 16 feet 6 inches from grass level, and a sample of the mud was taken, in which Mr. Lyell found seeds of several plants, identified later by Mr. Clement Reid, who gives a list of between fifty and sixty plants, chiefly from Pit C, and reports as follows:—

This is the usual flora of Roman Britain, with the same group of cultivated plants and weeds of cultivation as is found in other excavations, and the same singular absence of some of our most common species. A few of the plants have not been recorded before.

The opium-poppy is a new discovery at Caerwent, though it has been found on several occasions in Roman Silchester; its seeds were scattered on bread. The greater celandine is a plant only found in the neighbourhood of houses, and was formerly in use for curing warts; it is not improbable that it was used for medicinal purposes in Roman Britain; it has been found at Silchester also. The cultivated pea is rare on Roman sites. Seeds of coriander and dill were in common use in Rome as condiments or spices. Alexanders is a pot-herb only found near villages: it is a new record for Roman Britain. The deadly nightshade, or belladonna, was in common use in Rome for enlarging the pupils of the eye; it is one of the commonest plants in Roman Britain. Neither the vine nor the fig, both common at Silchester, has yet been discovered at Caerwent.¹

Just west of the termination of the long wall was a small pit, F 2. Nothing of any note was found in it. Bottom was reached at 8 feet 6 inches from grass level.

Another long boundary wall was discovered to the north of the pit. The wall turns north at its western end and connects up with the boundary walls of House

¹ The greater celandine still grows in profusion at Caerwent. Alexanders is an abundant plant on the "Roman" camp at Clifton.—H.

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no. VII x. At the angle where the wall turns north a very irregular-shaped pit was found. The pit was probably used for digging gravel or sand. Nothing was found in it.

The annexed plan (fig. 9) shows the progress of the excavations down to the end of 1909.

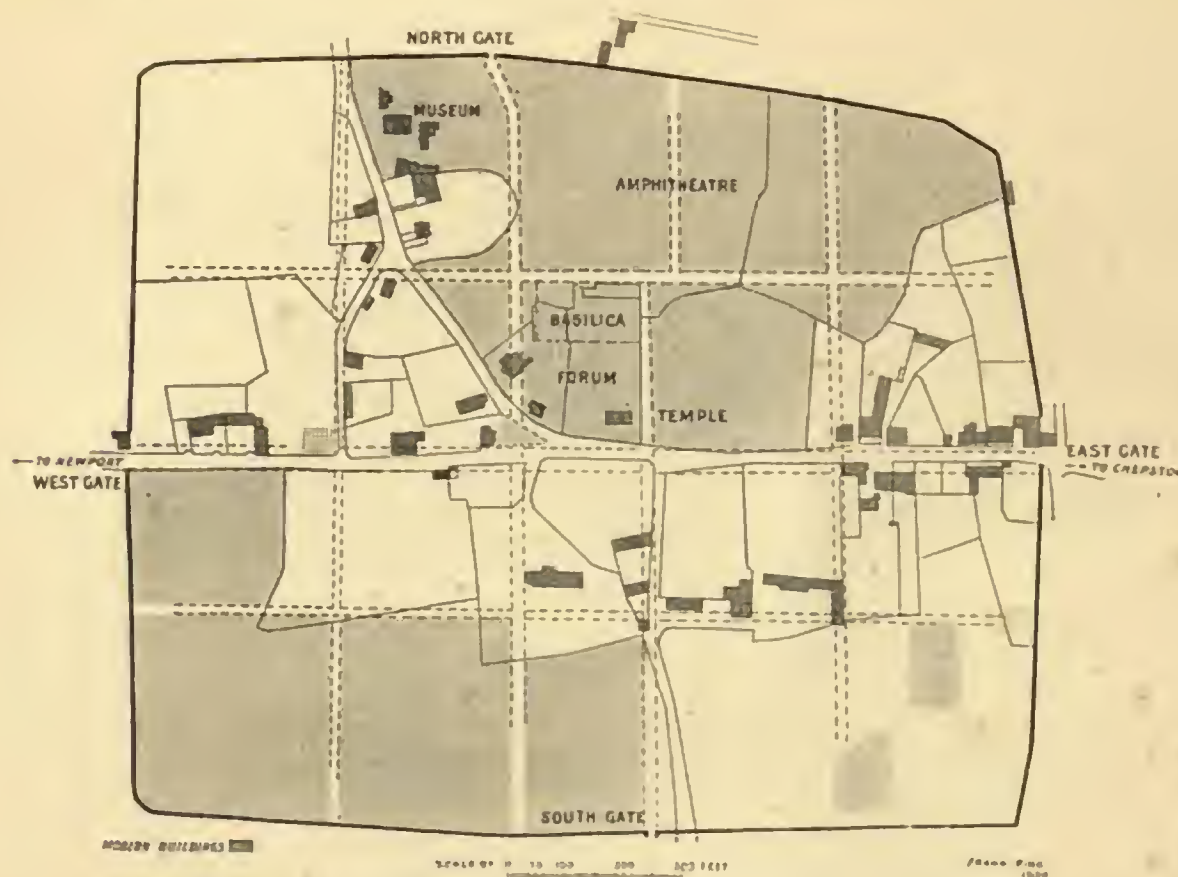
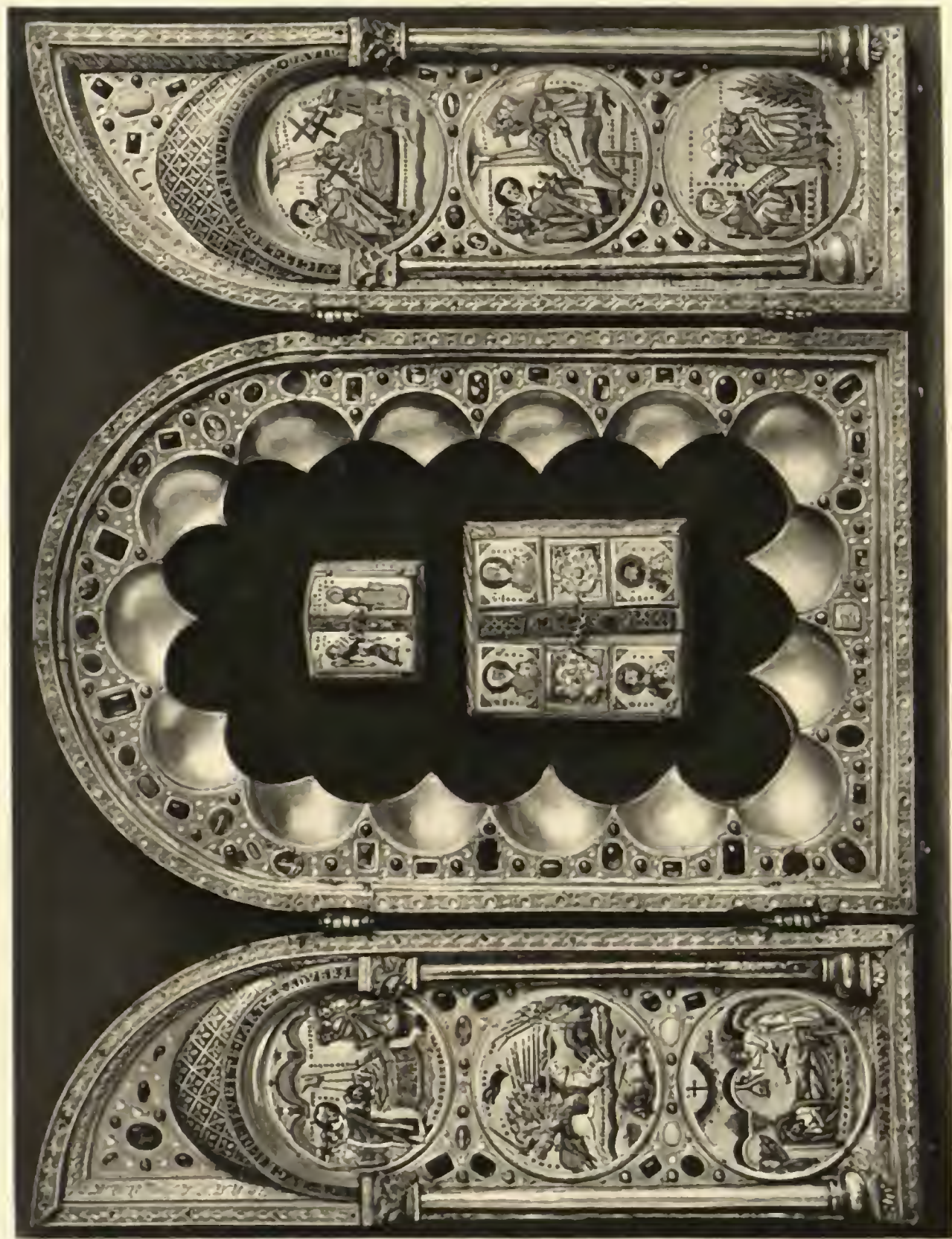


Fig. 9. Block-plan of Caerwent, showing the parts excavated down to the end of 1909.





TRIPTYCH OF THE TWELFTH CENTURY FROM THE ABBEY OF STAVELOT IN BELGIUM (4)

Widened by the Society of Antiquaries of London 1910

II.—*On a triptych of the Twelfth Century from the Abbey of Stavelot in Belgium, containing portions of the True Cross.* By CHARLES HERCULES READ, Esq., LL.D., President.

Read 2nd December, 1909.

FROM time to time the Society has the privilege of examining and publishing important examples of mediaeval art brought to its notice by the Fellows. Of these a fair number are fortunately in the safe keeping of museums or corporate bodies in this country, and such are mainly the most important. I have in my mind treasures like the relics of the Black Prince at Canterbury [would that they were better cared for !], the crozier of William of Wykeham at New College, and "King John's Cup" at Lynn. Such legacies as these are not likely to leave our shores, short of some national catastrophe. For the rest, still very numerous, that remain in private hands, there can be no doubt that the tendency at the present time is rather in favour of their finding homes in foreign than in English collections. Our riches in such directions, however, help to make London a market or exchange for works of art, and the wealthy buyer is forced to come here to increase his collections. In this way we have before us this evening a monument of mediaeval art workmanship of a kind and importance that is but seldom found in the open market.

In addition to its intrinsic and obvious merits, the triptych has an interesting and chequered history. Its more recent vicissitudes suffice to connect it with the Abbey of Stavelot (Stablo) in the Ardennes, an important link of the chain of evidence that will carry us back to the twelfth century, the period of its manufacture.

The body of the triptych is made of oak, covered on the back with velvet, once red; the middle panel has a semicircular top, the two wings in the usual form of half arches closing over and covering the middle (plate II). The principal features in the latter are the relics in their shrines, a fragment of a nail above, and two pieces of the Cross in another shrine below, disposed in a cruciform fashion. Each of these shrines is in triptych form, and set with plaques of cloisonné enamel on gold, evidently of Byzantine make, though adapted to their present positions and use by the Western maker of the relic-shrine. These will be described in detail later on. These two Byzantine triptychs are square in form, the lower one, containing the pieces of the Cross, being much larger than the other; they are set on a plain ground of cloth, with no ornament near them (in itself

a curious and unusual arrangement ¹) until we come to the broad and rich border of gilded copper edging the panel. The inner edge of this border is formed of fifteen concave plain cusps, beyond which is a hatched ground enriched with cabochon gems, or imitation gems, alternating with circular depressions which, catching the light, add considerably to the brilliancy of the general effect. The extreme edge of the middle panel has a raised border with similar hollows, and immediately within it is a plain moulding in gold. The two wings are symmetrical in design. The subjects in each are contained within an arch with plain silver columns having floriated capitals and globular bases, gilt; the semicircular arch is inscribed in capital letters on blue ground ECCE CRUCEM DNI FUGITE PARTES ADVERSE, on one arch, and on the other VICIT LEO DE TRIBU IUDAE RADIX DAVID; above each arch is a dome having a gilt trellis-work on a peach-coloured enamel ground. The remaining space is filled with a hatched ground enriched with gems as in the middle panel, and the outer edging also corresponds. Within the arches just described are six circular medallions of copper gilt and ornamented with subjects in champlevé enamel, three in either wing. The spaces between them are again filled with the same pattern of background as in the border of the middle panel, viz. hatching interspersed with gems and concave gilt depressions. The appearance of these medallions is of unusual brilliancy and richness, even for the productions of the Mosan school of enamelling, which, next to that of Byzantium, is undoubtedly the most remarkable for these attractive qualities. The ground being throughout of richly coloured gilding provides a gorgeous background for the polished enamels, and we thus have a truly attractive general effect due to the bold juxtaposition of the brightest tints. The colours used comprise a shaded blue, green, turquoise, white, and scarlet, with here and there translucent crimson (*e.g.* in the fire where the Empress Helena receives the Jews), as well as a pale plum colour; the borders are white. In the medallions on the dexter wing (plate IV) the subjects refer to the Conversion of the Emperor Constantine, on the sinister to the Invention of the Cross (plate III). In both cases the story begins at the bottom of the series. Thus in the lowest medallion of the dexter side is represented Constantine asleep, with the *Angelus Domini* standing beside the bed holding a scroll inscribed IN HOC VINCES; behind are two arches representing the palace, and above is the Cross within an arc of clouds. The next medallion represents the Battle of the Milvian Bridge, in which Constantine overthrows Maxentius. This medallion is the most brilliantly coloured of the series, and the

¹ A comparison with other similar works of the time, and particularly the triptychs in the Église de la Sainte Croix at Liège and in the Dutuit Collection in the Petit Palais in Paris, makes it almost certain that the middle panel in this triptych originally had supporting figures for the relics. It is not conceivable that a twelfth-century artist would have left the field immediately around the central subject so entirely devoid of ornament.



MEDALLIONS ON THE SINISTER LEAF OF THE STAVELOT TRIPTYCH (?)

Published by the Society of Antiquaries of London 1870



MEDALLIONS ON THE DEXTER LEAF OF THE STAVELOT TRIPTYCH. $\frac{1}{2}$

Published by the Society of Antiquaries of London, 1910

composition is more vigorous and full of action than the others, and recalls similar scenes in manuscripts of the fourteenth century. The uppermost medallion shows the baptism of Constantine by Pope Silvester. The Emperor is standing naked in a hexagonal well-like font, the Pope on one side places hands upon his head, and on the other stand *Ministri*. Above is a triple arch, from the midst of which descend rays with the Hand of the Almighty.

The three scenes on the sinister leaf give the story of the Finding of the Cross (plate III). The version adopted incorporates the features introduced into the narrative at the close of the fourth, and in the course of the fifth century.¹ The story, which begins at the bottom and reads upwards, is as follows: In the lowest medallion the Empress Helena, enthroned, receives the group of Jews from whom she demands information as to the site on which to excavate; she holds in her hand a scroll with the words *OSTENDITE LIGNVM*. On the extreme right is the fire in which the Jews are to be burned if they refuse to tell all that they know. The scroll marked *IVDAS NOVIT*, carried by one of the group, indicates that his countrymen have betrayed the foremost figure, Judas, as the real possessor of the secret. In the middle medallion, Helena stands on the left, before high ground marked *CALVARIE LOCVS*. On the right, Judas hoes up the ground, in which is seen the Cross of Christ between an inscription in two lines: *LIGNVM DOMINI ABSCONDITVR*. In the background, two figures bear the already discovered crosses of the two thieves, marked *PATIBVLA DVORVM LATRONVM*. Above is the Hand of the Almighty issuing from rays of light.

The uppermost medallion shows the dead man raised to life upon his bier by virtue of the cross held by Macarius, the Bishop of Jerusalem. Behind the Bishop stands Helen; and on the right, a man carries away the two crosses of the thieves, which have failed to perform the miracle.

The Byzantine enamels² of the two small triptychs are executed by the cloisonné process, with backgrounds of plain gold.³ They produce the sumptuous

¹ These features are the discovery of three crosses instead of one (mentioned by SS. Ambrose and Chrysostom); the identification of our Lord's cross by a miracle performed by it (Paulinus, Theodoret, Sulpicius, Rufinus, Socrates, Sozomen). Several of these authors state that the nails were found with the cross; and Paulinus relates the further miracle that the portion of the cross kept at Jerusalem gave off fragments without diminishing (Newman, *Essays on Miracles*, 299, 300). The apocryphal Story of Judas was condemned by Pope Gelasius in A.D. 494, but nevertheless obtained currency and was accepted through the Middle Ages (*Acta Sanctorum*, May, vol. iii. 367).

² I am indebted to my colleague, Mr. O. M. Dalton, for kindly describing these Byzantine enamels. He has recently made a special study of this class of work, and it therefore seemed to me that the Society would gain by his collaboration.

³ Byzantine enamels are very rarely executed by any other process, though the backgrounds are often also covered with enamel. The best-known example in which the champlevé process is employed is the large plaque representing St. Theodore, formerly in the Basilewsky Collection, and now in the Hermitage at St. Petersburg (Darcel and Basilewsky, *La Collection Basilewsky*, plate xiv; Labarte, *His-*

effect in which such enamels seldom fail; with their richness of colour, and the subdued reflection from the surrounding gold, they possess, if we may compare small things with great, something of the charm of the mosaics in Byzantine churches. Although upon a close examination they are hardly equal to the finest existing work of this kind, yet, viewed from a short distance, they are similar in their decorative effect.

The accompanying illustrations will give an excellent idea of their general character (plates V, VI, VII). The larger has in the interior the relic, in the shape of a wooden cross, above which two bands of gold terminating in four pearls are fixed in the form of a saltire (plate V). Four enamelled plaques fill the spaces between the arms: the upper two contain half-figures of the Archangels Gabriel and Michael; the lower two, standing figures of Constantine and Helen: the surrounding metal-work is of Flemish and not Byzantine origin. The wings, which are surrounded by borders of inlaid red glass pastes, apparently of Western workmanship, contain in the interior four plaques, each with a standing figure of a saint, the persons represented being SS. George, Procopius, Theodore and Demetrius. All the figures in the interior are accompanied by their names in enamel.

On the exterior (plate VI), the leaves have also mounts of Western origin, and the embossed flowers of the middle panels are in like manner Western. The four other panels contain gold plaques with Byzantine enamels representing busts of the four Evangelists, St. John, as is usual in Byzantine art, appearing as an old man with a white beard. All are accompanied by names, and by small enamelled corner-pieces which give the central space of each plaque the appearance of a circular medallion. On the flange of the right wing, which covers the median line when the triptych is closed, are set three fragments of mosaic-like cloisonné enamel of a common Byzantine design.

The smaller triptych has also been remounted or repaired in the West. It has in the interior a Byzantine enamelled panel with the Crucifixion between the Virgin and St. John with the usual accompanying inscriptions: "Behold thy Son," and "Behold thy Mother": above are the sun and moon.

In the interior, the leaves have only filigree and gems of Western origin; but upon the outside are two enamelled plaques, together representing the Annuncia-

toire des arts industriels, Album, ii. plate 105); even here the *champlevé* work is only partial. The metal used by the enamellers was almost always gold, or perhaps a fine alloy: copper is occasionally found, as in the Basilewsky plaque above mentioned, and in a medallion in the British Museum described before the Society in May, 1906 (*Proceedings*, 2nd S. xxi. 194). This medallion has enamels on both sides, a rare but not unprecedented feature. Of the method of firing employed by Byzantine enamellers we know little. It may be assumed that their apparatus, if less elaborate than that necessary in modern times when furnaces are heated with coal or gas, was rather more complete than those described by Theophilus about A.D. 1100 (*Diversarum Artium Schedula*, iii. 54).

tion. On the left is the archangel bearing a floriated wand; on the right the Virgin stands in front of her seat, and holds the spindle in her left hand. Above her head is the inscription, "Hail! thou that art highly favoured."

The principal colours are lapis and turquoise blue, crimson, flesh-pink, translucent green, yellow, opaque white and black. In both triptychs the conventional treatment of the nose, eyebrows and eyes is the same, and there seems no reason to suppose that they were made at different times.

To determine the precise date of Byzantine enamels is generally impossible. Only in a few examples are historical persons represented, or mentioned in inscriptions under circumstances which allow us to infer a contemporary date for the work. Such are the reliquary for wood of the True Cross now in the cathedral church of Limburg on the Lahn, on which the names of Constantine VII. and Romanus occur;¹ the crown with figures of Constantine Monomach, the Empress Zoe, and her sister Theodora, in the Museum at Budapest;² and the ikon from Chachuli in the church of the monastery of Gelat in Mingrelia, on which Our Lord is seen crowning Michael VII Ducas.³ In other cases there is probability but no certain evidence. The remarkable enamelled reliquary at Poitiers may be that sent by the Emperor Justin II. to St. Radegund, but the identity cannot be definitely proved.⁴ In yet other cases the circumstances of discovery provide a *terminus post quem*: a small enamelled cross was found in the tomb of Queen Dagmar of Denmark (+ A.D. 1212);⁵ a larger cross, apparently of greater age, was discovered in the reliquary chest of Leo III. (A.D. 795-816) in the *Sancta Sanctorum* at the Vatican, and probably belonged to the original treasure.⁶ As a rule, however, we are compelled to fall back upon a judgement based on the resemblance of types represented to those found in illuminated manuscripts and other works of art, or on merits and defects of style; this is the case in the present instance. If we omit from the comparison the surviving enamels of the earliest centuries,⁷ and confine ourselves to

¹ E. Aus'm Weerth, *Das Siegeskreuz der Byzant. Kaiser Constantinus VII. und Romanus II.*, 1861, plate 1; Labarte, *Histoire des arts industriels*, ii. 83 ff.; N. Kondakoff, *Die byzantinischen Zellschmelze der Sammlung Dr. Alexis von Swenigorodskoi*, 209.

² F. Bock, *Kleinodien des heiligen Römischen Reichs*, plate 38; E. Molinier, *L'orfèvrerie*, 52; Pulszky, Radisiès, and Molinier, *Chefs-d'œuvre d'orfèvrerie à l'Exposition de Budapest*; Kondakoff, as above 2 and 3 ff.

³ Kondakoff, as above, pp. 135 ff. and figs.; G. Schlumberger, *L'Épopée byzantine*, i. 137, 188.

⁴ Barbier de Montault, *Le trésor de Sainte-Croix de Poitiers*, plate i; E. Molinier, *L'orfèvrerie*, 38-40.

⁵ G. Stephens, *Queen Dagmar's Cross*, 1863; Kondakoff, as above, 178, figs. 51 and 52; *Archæological Journal*, ii. 166; E. Molinier, *L'orfèvrerie*, 57.

⁶ Ph. Lauer, *Monuments et Mémoires, Fondation Eugène Piot*, xv, 1906, 36 ff. and plate vi; *Edinburgh Review*, no. 420, 1907, p. 471; *Civiltà Cattolica*, 1906, part ii.

⁷ Cloisonné enamelling may have been practised at Constantinople as early as Constantine, and is certainly as old as Justinian, though the region from which it was introduced into the capital is not known with certainty. The majority of existing Byzantine enamels belong to the period between the close of the iconoclastic disturbance and the thirteenth century.

those of the flourishing period of Byzantine enamelling between the second half of the tenth century and the sack of Constantinople in A.D. 1204, we shall be disposed to place the present small triptychs after the middle of the period. If they have not all the qualities of the Limburg reliquary, they are superior to the work produced after the middle of the twelfth century. At that time the tones became harder and the general effect more dry; the flesh tints lost their colour and became a dead unnatural white; we may compare a similar degradation in the case of the painted enamels of Limoges, where the flesh tints of Suzanne de Court are distinguished in a similar way from those of earlier and better artists. These defects are not conspicuous in the work now under discussion, and it seems on the whole probable that these enamels had not been long in existence when Wibald took them home from Constantinople in 1155 or 1157. The first half of the twelfth century, or at the earliest the close of the eleventh, would appear to be their most probable date.¹ It has already been observed that their appearance has been changed by the additions made in the West by Flemish goldsmiths.

The relic of the True Cross, if obtained by Wibald, thus left Constantinople about half a century before the majority of similar objects which formed part of the Crusader's loot, and were distributed throughout Europe after the sack of A.D. 1204.² It may be recalled that a gold cross containing a relic of the wood, once belonging to Baldwin I, became a valued possession of Bromholm Priory in Norfolk, whence it probably disappeared at the Reformation.³

The modern history of this triptych seems to be well confirmed and to establish its connexion with the Abbey of Stavelot. In November, 1792, the French army had just entered Liège. The Prince Abbot of Stavelot, Cornelis Thys, fled from his abbey for refuge beyond the Rhine, where the Chapter had already sent for safe custody the archives and plate of the community. The retable of the high altar seems to have been carried away on this occasion, for it is related by Thomassin⁴ that in 1794 the metal composing it was melted down, and served for the support of the fugitive abbot and his companions in their exile. From another account it would appear that the abbot obtained hospitality eventually with a family named Walz living at Hanau, near Frankfurt. On his departure he left with them a large, heavy chest, and this was

¹ See also Kondakoff, 220; F. Bock, *Byzantinische Zellenschmelze*, 181-4.

² See Comte Riaut, *Des dépouilles religieuses enlevées à Constantinople au XIII^e siècle par les Latins*, etc.; in *Mémoires de la Société nationale des Antiquaires de France*, vol. xxxvi. (Separate copy in the Library of the British Museum.)

³ *Ibid.* 57, 189. The original information is derived from Ralph of Coggeshall, ed. Duncin, 1852, p. cxxv, and Roger of Wendover, *Chronicon* (ed. of the English Historical Society, 1841-5), iv. 90. This relic was abstracted from Baldwin's treasure by an English chaplain, who brought it to his own country and disposed of it there.

⁴ *Mémoire statistique du département de l'Ourthe*, 1879, p. 250.



BYZANTINE TRIPTYCH WITH A RELIC OF THE TRUE CROSS, OPEN. $\frac{1}{4}$

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consigned to an attic, where it remained for years. On being opened it was found to contain a number of church vestments and other similar things, among them the triptych now in question. The Walz family distributed the vestments among the religious foundations of the neighbourhood, but retained the triptych, which has been preserved as a precious relic for about a century. The owner has consistently refused to lend the triptych to exhibitions, and it did not even figure in the splendid collection of enamels shown at Düsseldorf in 1902. It has therefore remained in seclusion, and comparatively but little known, up to a few weeks ago, when Mr. Durlacher persuaded the owner to cede it to him.

This story, joined to the style and appearance of the work itself, furnishes good *prima facie* evidence of the Stavelot origin of the triptych. But a still closer bond is claimed for it by Dr. Franz Bock.¹ In describing the Byzantine enamels in the well-known Svenigorodskoi collection, he takes the opportunity of comparing with them any other specimens of the same kind of work that he has been able to trace, and among his descriptions he includes that of the Hanau triptych. He made independent investigations on his own behalf, though he gives no details of what these were, and comes to the conclusion, not only that he had before him a real relic of the vanished glories of the abbey church of Stavelot, but further that it was an example of the pious luxury of the great Abbot Wibald, the learned statesman and counsellor of emperors, who died in 1158. This particular conclusion he founds on a description of the church of Stavelot written in the eighteenth century by two Benedictines named Martène and Durand and published in their *Voyage littéraire de deux religieux bénédictins de la Congrégation de S^t Maur* (Paris, 1724). They were much struck by the riches of the monastery, and particularly the good order in which the muniments were kept: "Dans une ancienne chapelle, qu'on dit que l'abbé Wibaldus s'étoit faire bâtir sur le modèle de Sainte Sophie à Constantinople. Nous y vîmes un ancien cartulaire, qui renferme un si grand nombre de chartes des rois de la première race, qu'il n'y a que Saint Denys qui puisse lui disputer pour le nombre." In connexion with the present subject, it is of interest to note that further on they call attention to "une très-belle croix d'or, dans laquelle il y a du bois de la vraie croix, que Wibaldus rapporta de Constantinople, et le chef de Saint Alexandre martyr". What, however, principally concerns us, in connexion with Dr. Bock's theory, is their description of the high altar. They say: "The decorations of the church are very beautiful . . . the altar magnificent. The front, of silver gilt, represents the descent of the Holy Ghost on the Apostles, whose figures are in relief, with this inscription, *Factus est repente sonus tanquam advenientis spiritus vehementis, et repleti sunt omnes Spiritu Sancto*. The retable, much richer, is in solid gold. It represents the chief mysteries of

¹ *Byzantinische Zellenschmelze.*

the Passion and Resurrection of Our Lord. It is the work of the great Wibald, whose figure stands on one side, and on the other that of the Empress Irene." This description, written in the year 1718, is perfectly clear, and is, in addition, confirmed by that of Saumery,¹ who uses almost identical words in describing the altar and retable, little more than twenty years later.

But confusion is imported into the matter by a discovery made in the archives at Liège in 1882. M. van de Castele, the keeper, found among a number of papers relating to an action at law brought by the abbey of Stavelot in 1662, a drawing of the retable of the altar at Stavelot, which differs materially and essentially from the description given above. In place of the mysteries of the Passion, the drawing shows a series of scenes from the life of St. Remaclus, the patron saint of the monastery, and there is no sign of the figures of Wibald or the Empress. Nevertheless, in a prominent position on the retable, as shown in the drawing, is a long inscription, beginning "Hoc opus fecit abbas Wibaldus"; with a note of the cost (100 marcs in all) and a penal clause against any one destroying it.

It might be urged that the drawing is fanciful, and represents something that had no actual existence; but the contrary seems to be fairly proved by the existence of two of the enamelled medallions forming part of it, which are still preserved in the princely museum at Sigmaringen. They are shown in colours in Dr. von Falke's monumental work,² and from the figure would seem to be of bolder and somewhat coarser work than the medallions on the Hanau triptych, and in my judgement do not serve materially in deciding its authorship.

Although, however, it would be satisfactory if the statements of the Benedictines could be reconciled with the Liège drawing, it is not really essential to the present subject to effect the agreement. The evidence for the triptych is fairly conclusive of its connexion with the abbey of Stavelot; the character of the work is in itself so marked, and is directly comparable with so many dated examples of the same kind, that it can be safely set down as of the time of the great Abbot Wibald, and we thus get two facts that help us towards determining one other point of interest, viz. the name of the artist who made it.

The Benedictine travellers speak of Wibald as "the great", and in truth he appears to have been a remarkable man. A member of the most learned of the monastic orders, he led a busy and useful life.³ As statesman, as the intimate counsellor of the German emperors, and their intermediary with the Popes in weighty affairs of state, he might have found occupation enough. But he still found time and energy for the official labours of his abbacy, which comprised

¹ *Délices du Pays de Liège*, 1743.

² *Deutsche Schmelzarbeiten*, plate xxiv.

³ See J. Janssen, *Wibald von Stablo und Corvey*, Münster, 1854.



BYZANTINE TRIPTYCH WITH A RELIC OF THE TRUE CROSS. CLOSED. $\frac{1}{1}$

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the supervision of three establishments, that of Stavelot, of Corvey in North Germany, and of Monte Cassino in South Italy, and he particularly devoted himself to the embellishment of his churches, especially of that at Stavelot. Born in 1098, he was educated at Stavelot, and was known as one of the most learned men of his time; he became abbot in 1130, and died in 1158. In spite of his numerous avocations and manifold responsibilities he found time to make two pilgrimages to Constantinople, as we have seen.

The numerous relics of church furniture of the twelfth century still remaining in the Meuse and Rhine districts amply show how important was this branch of artistic development, and it can scarcely be doubted that a personage of the standing of Abbot Wibald would have had in his employ the best craftsmen that the time and the country could provide. The evidence on the subject is unfortunately slight. In 1148 the abbot writes a letter to "the goldsmith G.,"¹ pressing for the delivery of certain work he had ordered. This reference has been generally accepted by the authorities as indicating the well-known artificer Godefroi de Claire. This artist was himself a person of some distinction. A Walloon and citizen of Huy, he had been in the train of the emperors Lothair and Conrad III., by which he had not only acquired great wealth, but had also become an important personage. In 1174 Radulphus de Zaehringen, Bishop of Liège, caused the bodies of the saints Mangold and Domitian to be encased in two shrines richly worked, the shrines having been made by the celebrated goldsmith Godefroi de Claire, called the Noble, and placed in the church of Notre Dame at Huy.² Towards the end of his life he made large gifts to churches, particularly to that of Neufmostier, where he ultimately entered as a regular Augustinian canon and spent the rest of his life, still continuing, however, to work at his art.

In an original manuscript necrology of this abbey (which has the additional interest as containing the name of Peter the Hermit) the name of Godefroi is entered as follows, without any year³:

November D^o viii K^o Commemoratio Godefridi aurificis fratris nostri (another later hand adds, in the same line) Iste Godefridus aurifaber civis Hoyensis et postmodum ecclesie nostre concanonicus vir in aurifabricatura suo tempore nulli secundus per diversas regiones plurima sanctorum fecit feretra et cetera regum vasa utensilia. Nam in ecclesia Hoyensi duo composuit feretra, turibulum, &c.

¹ Jaffé, *Biblioth. Rer. Germ.* i. 194.

² Laurent Mélat, *L'histoire de la ville et chateau de Huy*. M. Vierset Godin cites a little book printed in 1685, entitled *Incunabula Ecclesie Hoyensis*, giving an inventory of the treasures of the collegiate church at Huy, drawn up in 1274 by Joannes de Appia, the warden. This inventory states that these shrines were made at the costs of the Chapter by Godefroi de Claire, otherwise called the Noble, and that the bodies were solemnly placed in them in the year 1172 or 1173. Gilles d'Orval, a contemporary chronicler, gives the actual date as June 15, 1173 (*Bulletin des Commissions royales d'art et d'archéologie*, 1^{re} Année, 1862, p. 397).

³ *Bulletin de l'Inst. archéol. liégeois*, xiii. (1877) 221.

This is confirmed further, for what it may be worth, by the chronicle of Jean d'Outremeuse.¹ "L'an xi^elxxxiii revient Godefroit, appedain de Huy, à maistre d'orfeivrie, li miedre et li plus experts et subtils ovriers que ons sawist en monde à chel jour, et qui avoit cerchiez toutes regions; si revient à Huy en mois de jule; ilh avoit demoreit bien xxvij ans hors, si avoit eu maintez regions diverses bons ovrages, fietres et altre queilconques ovrage, etc."

The dates here given do not agree with that of 1148 as that of the letter written by Wibald to the "goldsmith G." In that year the latter must have been at home, and an absence of twenty-seven years would make his return take place in the year 1175, not 1173, as Jean d'Outremeuse has it. The probability is that 1174, the year given by Mélart, is the right one for Godefroi's return, which would allow an absence of nearly the necessary time.

The two shrines made by Godefroi for the two saints Mangold and Domitian at Huy still exist, but sadly shorn of their pristine beauty by restorations in the sixteenth century, and even curtailed in actual size. Their principal ornaments are large scale figures of embossed silver, quite different in character from anything in the triptych now in question; but, on the other hand, these figures are identical in style with those on the triptychs in the Church of the Sainte Croix at Liège and in the Dutuit collection in Paris. In both of these, moreover, all the details of the subsidiary decoration are again identical with those of our triptych, the six enamelled medallions of which, again, are identical with those of the wings of the Dutuit triptych. Thus a chain of evidence, independent of the history of the Hanau triptych, tends to confirm its attribution both to Stavelot as its place of origin, and Godefroi de Claire as its maker. Examples of the work of this accomplished artist are to be found both in the British and Victoria and Albert Museums, and a detailed account both of these and of all other pieces ascribed to Godefroi is given in the fine work of Dr. von Falke, where no less than fifteen plates are devoted to him and his school. Among these the shrine of St. Heribert (made about 1155) is one of the most important, and on Falke's plates, 85, 86, and 87, the circular enamelled medallions from it are shown. The resemblance in style between these and the similar medallions on the Hanau triptych is very striking, and lends strong additional confirmation to the attribution of both to Godefroi de Claire. The date of Abbot Wibald's death, 1158, moreover, would point to approximately the same time as the period of the manufacture of the triptych we have now before us.

¹ Ed. Bormans, iv. 457.



LESSER TRIPTYCH, WITH RELIC OF ONE OF THE NAILS, OPEN AND CLOSED. $\frac{1}{2}$

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THE MANOR OF EIA, OR EYE NEXT WESTMINSTER

The divisions represent half-mile squares

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III.—*The Manor of Eia, or Eye next Westminster.* By WM. LOFTIE RUTTON,
Esq., F.S.A.

Read 20th January, 1910.

IN the days of King Edward the Confessor the Manor of Eye next Westminster, entered as Eia in Domesday Book, was held of Queen Edith by William the Chamberlain. This William, to use the significant words of the record, lost the manor (*manerium amisit*) at the Conquest by William of Normandy, when it fell into the possession of Geoffrey de Manneville or Mandeville (latinized as Magna Villa), who, as perhaps chief of the Conqueror's companions in arms, profited in the acquisition of some 118 English manors, situated in ten counties, chiefly in Essex and Suffolk.¹ This baron by many tenures, about twenty years after the Conquest, being in possession of the Manor of Eye adjoining the estate of the Abbey of Westminster, and no doubt desiring in a measure to atone for his misdeeds, gave the manor to the Abbey. He, in the words of the grant, "for his soul and the soul of Athelays his wife buried in the cloister of Saint Peter, where next to her he also was to be buried, and for the souls of his sons and daughters, gave to Saint Peter of Westminster the manor which near his church he had held, namely Eye, in perpetual heritage," etc. The grant is undated.²

In this grant there is no definite indication of the situation or extent of the manor, and simply from what is known of the Abbey possessions before and after the grant have its location and limits been determined, and laid down on the modern map. Thus Eia is believed to have been the western extension of the estate which lay between the Tyburn stream (A B C) entering the Thames (at A) 200 yards above the position of Vauxhall Bridge, and the Westbourne

¹ Dugdale, *Baronage*, i. 200.

² Eia was in possession of Mandeville at the time of making the Domesday Survey, commenced (as conjectured) in 1086; and as the grant was confirmed by the Conqueror, who died in September, 1087, its date must have been 1086 or 1087. Abbot Gislebert (or Gilbert) Crispin, 1082 (? 1085)–1117, witnessed it.

The name of the manor is printed "Ese" in the *Monasticon Anglicanum*, ed. 1817 (i. 309), and is similarly rendered in the transcript confirmation of the grant, Cotton MS. Faustina A. 111, f. 57^b. But the writer learns from the Dean of Westminster that in the Abbey *Liber Niger* (f. 56) the word is "Eye" in both the grant and confirmation; and that in an older cartulary, the "y", being dubiously written, has apparently by transcribers been incorrectly read as "s".

stream (D E) entering the river at Chelsea (E) near the Royal Hospital, while from south to north the manor extended from the river to the highway now Oxford Street. Within these limits the area computed on the map is 1,000 acres. In Domesday Eia is assessed for ten hides. Half of the manor was in demesne, and as arable land, meadow, and pasture were comprised, it is apparent that a fair proportion of solid, cultivable ground lay above the marsh on the low level bordered by the river. There is, however, no mention of wood as might be expected.

The earliest statement of the western limit of the Abbey estate is that often quoted from the Saxon charter of c. 951.¹ At "Bulinga Fen", which is identified with Tothill Fields, the boundary was said to follow "the old ditch" (A B) running north from the Thames to "Cuford" or Cow Ford, and thence to run up along "Teoburn" or Tyburn to "the wide heere street" or military road, now Oxford Street (C). "The old ditch," which probably had been made for drainage, meeting the Tyburn stream at Cowford (B), eventually became that course of the stream known as the Aye or Tyburn Brook, and later, in its polluted condition, as the King's Scholars' Pond Sewer. Tachbrook Street,² Pimlico, still marks the course. Thus at Cowford (B), which appears to have been where the Tyburn crossed the Chelsea Road near the site of Buckingham Palace, the stream became divided, part running along the road, afterwards James Street, to Westminster Abbey as a mill-stream, part flowing through "the old ditch" into the Thames.

About 1086 the Tyburn stream ceased to limit the Abbey estate, Mandeville's grant of Eye (or Eia) having extended the estate full half a mile westward to the stream we know as the Westbourne. Afterwards, in 1222, it became necessary, in order to settle a dispute between abbot and bishop, to define the limit of the parish of St. Margaret (which is understood to have covered all the homeland of the monastery of Westminster), the monastery and the parish being exempt from the jurisdiction of the See of London. Cardinal Archbishop Langton and other church dignitaries were the arbitrators, and their decree was to the effect that "the Parish of St. Margaret began at the water of Tyburn running into the Thames" (*Incipit igitur Purochia S. Margaretae ab aquâ de Tyburne decurrente in Thamisiâ*).³

Now, as the Tyburn had formed the western limit c. 951, and since that date the Abbey estate (generally assumed to be identical with the parish of St. Margaret) had been extended fully half a mile westward to the Westbourne, a difficulty has arisen as to the interpretation of the decree of 1222, which

¹ Kemble, *Codex Diplomaticus*, iii. 72.

² "Tachbrook" for "The Aye Brook" is suggestive, but is questioned.

³ Wharton, *Hist. de Episcopis*, 252.

seems to re-state "the water of Tyburn" as the western limit. The decree further declares that beyond the stated boundary were the *villae* of Knightsbridge, Westbourne, and Paddington, which pertained to the parish of St. Margaret, and these *villae* lay in sequence immediately beyond the western limit of Eia, as seen on the map. It is also to be said that the Abbey's possession of Eia, recognized by the Norman kings,¹ seems to have had a much firmer basis than that of the more distant lands mentioned. Yet, while these are allowed by the decree to be included in St. Margaret's, it seems that the nearer great manor is excluded.

Mr. George Saunders, Fellow of this Society and of the Royal Society, made in 1833 a careful and complete "Inquiry concerning the situation and extent of Westminster at various periods".² He considered the stated western boundary of c. 951 and 1222 to be identical, that at both times the *Tyburn* was the declared limit. He recognized that after 951 the Manor of Eye had been added to the abbot's estate, but that it had not been included in the "franchise of Westminster", and, therefore, not within the parish of St. Margaret.

On the other hand it has been thought that the terms "aqua de Tyburne" may have referred to the western stream which we know as the Westbourne, and that in earlier times, distinction not being made as later between the two streams coming from kindred sources, both were regarded as Tyburn water.

The greater probability, however, is that Eye, not having been included in the endowment of Edward the Confessor which carried extensive liberties over the lands granted, was not within the franchise of Westminster nor the parish of St. Margaret. It appears to have been accounted a detached portion of St. Martin's-in-the-Fields, even before the positive constitution of that parish, previous to which evidences are found of dispute touching the full authority of the abbot.

It has been assumed and stated that the large Manor of Eye or Eia was, at an indefinite time, divided into the three smaller manors of Neyte, Eybury, and Hyde. But no topographer has attempted to define the limits of these reputed manors, and although there is nominal mention of them, it will be submitted that on close examination their existence as distinct manors is not supported.

The three-manor theory is not very old, dating not earlier than 1833. Lysons, writing in 1795,³ is curiously inaccurate as to the abbot's grant to Henry VIII in 1536, even as to the date, and referring to the "ancient manors of Neyte and Hyde" he offers no explanation in regard to Eybury. The editors of *Monasticon Anglicanum* in 1817 were not more definite than Lysons; indeed, they simply

¹ Besides a copy of the Conqueror's confirmation of the grant in the Abbey *Liber Niger*, f. 56, the same contains, f. 6, that of Henry I, which notes also the confirmation *per breve* of William II.

² *Archæologia*, xxvi. 223.

³ *Environs*, ii. 113, 181.

repeated him. Sir Henry Ellis, a keen archaeologist, during forty years Secretary of this Society, and twenty-eight years Principal Librarian of the British Museum, wrote in his "Introduction to Domesday Book" (1833) that the Manor of Eia was granted to the king "by the name of Eybury". Thus it is evident that he thought Eia and Eybury synonymous, that Eybury was not merely a division of the great manor but the whole of it. Here, however, he does not mention Neyte and Hyde, and thus avoids the question of divisions. The same year (1833) Mr. Saunders (before quoted) made his "Inquiry", and addressed the "result" to Sir Henry Ellis. He it was that established the three-manor theory. He says: "Eia after the date of Domesday appears to have been divided into the three manors of Neyte, Eubery (*sic*) and Hyde." Mr. Walcott on "Westminster", Mr. Davis on "Knightsbridge", and indeed every writer subsequent to Mr. Saunders, has followed his lead. This question of three manors will have further reference as we proceed.

That the abbots of Westminster had a manor-house at Neyte, a residence apart from the Abbey although in its vicinity, is a well-known, interesting fact. The principal events which occurred at Neyte, viz. the deaths of two of the most notable abbots, Litlington and Islip, and its occupation on two occasions by Plantagenet princes, John of Gaunt, Duke of Lancaster, and Richard, Duke of York, are repeated in all references to the place. Yet no writer, even in our own critical time, has been able to point definitely to the site of the manor-house; it has been a matter of speculation. This oblivion of an historical spot probably results from the neglect of those authors who wrote the local history to mark the situation of the mansion at a time when at least a remnant of it must have been standing, or, if entirely demolished, whilst it was well within the memory of living people. For instance Strype, editing and adding to Stow's *Survey* in 1720, was surely in a position accurately to record the place, yet he seems to have made neither visit nor inquiry, and could only write of the market-gardens which had been laid out in the locality. He has nothing to say about Neyte Manor-house, and leaves it to posterity to puzzle whether "the Neat Houses on the banks of the Thames, inhabited by gardeners" had any connexion with it. Widmore, who came next, was minor canon of the Abbey, and also, as librarian, the keeper of the muniments. Yet, in his *History of the Church of St. Peter* (1751), although he refers to the manor-house he says no more of its situation than that it was "near Westminster"! Lysons, in his *Environs* (1795), is likewise ambiguous, saying merely that "Neyte manor adjoined Knightsbridge". Mr. Mackenzie Walcott, Curate of St. Margaret's, writing his *Memorials of Westminster* (1849), had not discovered the site, although he gave a useful clue to it by quoting reference to the manor in a Close Roll of 28 Henry VIII. Walford, in *Old and New London*, simply copies Walcott. Even Dean Stanley, in his *Historical*

Memoirs of the Abbey (1876), did not help the question of site by indefinitely representing "The Manor of Neyte, as a favourite country-seat of the Abbots by the river-side in Chelsea".

Later writers have not been more precise or earnest in search, and, indeed, the prolonged ignorance appears ridiculous when it is discovered that the site was found by the Ordnance Surveyors and duly marked on the map of large scale (5 feet to the mile) issued in 1872. On that map is clearly indicated "the Site of Neyte Manor-house", but as it is marked only on the large scale map, the omission on the more generally used edition (25:344 ins. to the mile) may serve as some excuse for its remaining unknown. The present writer shares the reproach of having overlooked the Ordnance revelation, which remained hidden until he had successfully finished his quest. Then the laurel of discovery had to be dropped; but there remained at least the value of corroboration, and the satisfaction that the long missing site was determined beyond doubt.

At the Record Office the Close Roll referred to by Walcott proved to be the grant by William Boston, the last abbot (and first dean under his real name, Benson), to the king of the greater part of the Abbey possessions in and near Westminster, and others at a distance. Nominally, the transaction was an exchange for the Priory of Hurley in Berkshire, but virtually this "exchange" of 1536 was the second act of confiscation made by the predatory monarch, who had in 1532 seized, also under semblance of exchange, much of the monastic property for the making of St. James's Park and the completion of the environs of his recently acquired Palace of Whitehall. The third and final act of confiscation was the suppression of the monastery in January, 1540 (n.s.).

At present we are especially interested in Neyte. It is the first item of the grant of 1536; which, although in Latin, we will quote in its English form as incorporated in the Act 28 Henry VIII. Cap. 49 (*Statutes of the Realm*, iii. 709), thus:

All that site, soil, circuit, and precinct of the Manor of Nete within the compass of the moat, with all the housings, buildings, yards, gardens, orchards, fishings, and other commodities in and about the same site.

Here the *situation* of the manor-house is not indicated, but the fact that it stood within a moat serves as a clue for further search. With this in mind a plan is soon found in the Crace Collection, British Museum (Portf. x. 21), the date 1614, showing "Nete House" in an enclosure formed by a moat (fig. 1). The house is built around three sides of a quadrangle open to the road passing in front, where doubtless the moat was bridged. The road which makes a loop to enclose the premises is named "Willow Walk". The plan is a copy of one in the archives of the Grosvenor estate, and it is endorsed: "A Plan of the Manor of *Eybury*." A second plan, dated 1675, is equally satisfactory, and again the title is: "A Map

or Plot of the Lordship of *Eburie*" (fig. 2). Here the moat is gone, but "The Nete House" is indicated, in the "bird's-eye" draughtsmanship of the time, by a little very roughly sketched elevation representing a building, apparently a remnant, terminating in a tower crowned by what may be taken as a broken parapet. As these rude little sketches are probably the only existing indications of Neyte Manor-house they are certainly valuable. And it is submitted that the enlarged facsimiles now reproduced, showing the moat-surrounded house with a central

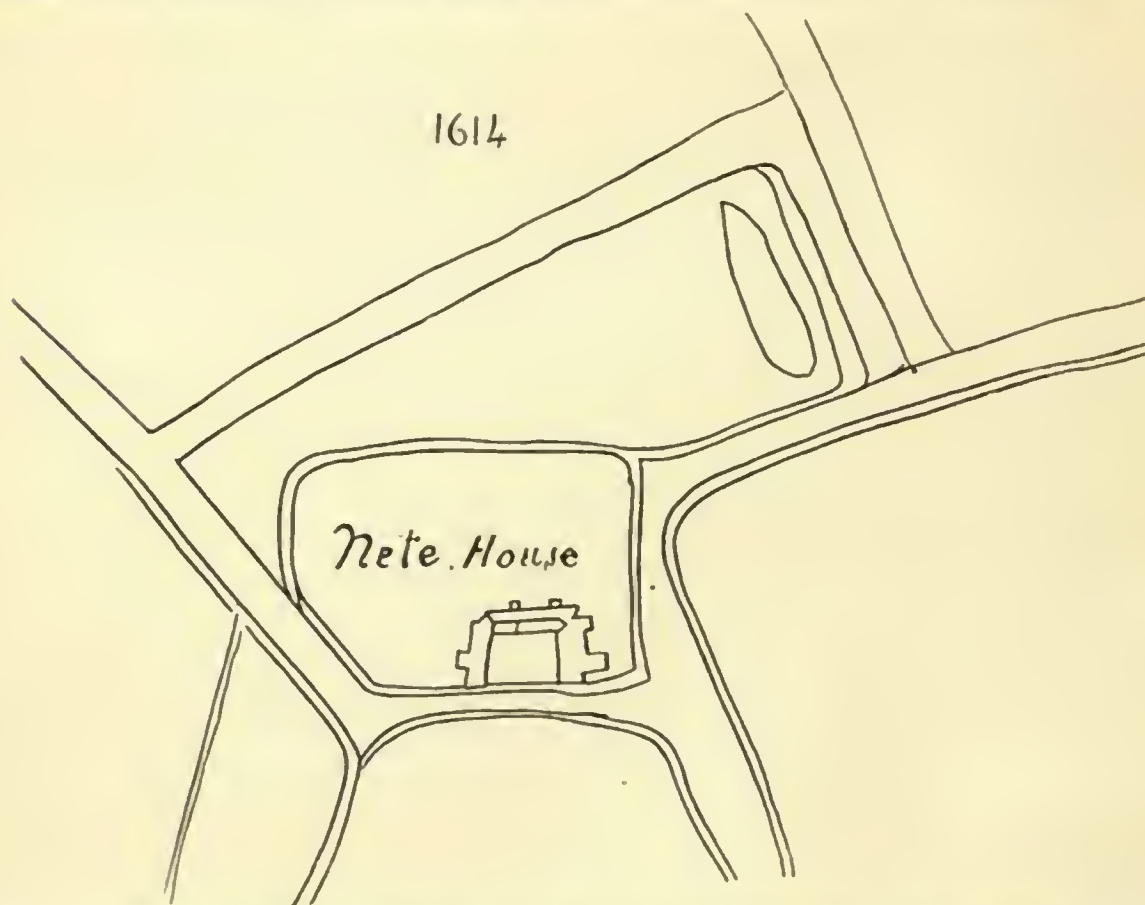


Fig. 1. Rough sketch of Neyte or Nete Manor House in 1614, from the Crace Collection.

court, tower, and broken battlement, fairly represent a mediaeval residence, and as such are convincing evidence of the abbot's house, the object of our search.

Having these traces of the manor-house on the old plans of 1614 and 1675, it is not difficult to find the situation on the modern map. It is a matter of common knowledge that Warwick Street, Pimlico, follows the line of the former Willow Walk: the change of name is to be regretted, though partially it survives in "Willow Street" on the east side of the Vauxhall Bridge Road opposite the point where Warwick Street starts to run westward. The bridge-road marks nearly the western verge of the obliterated Tothill Fields. Along Warwick

Street, about 700 yards from its east end, a street on the south side preserves the loop which once enfolded Neyte House; and Warwick Street, like its forerunner the Willow Walk, was not continued in its direct course until 1869. Then it was driven straight on, and now between it and Sutherland Terrace (late St. George's Row) on the south is enclosed a block of buildings which covers the site we are seeking. It is here that the Ordnance Map of large scale notifies "Site of Neyte Manor House", thus corroborating the result of the search now related.

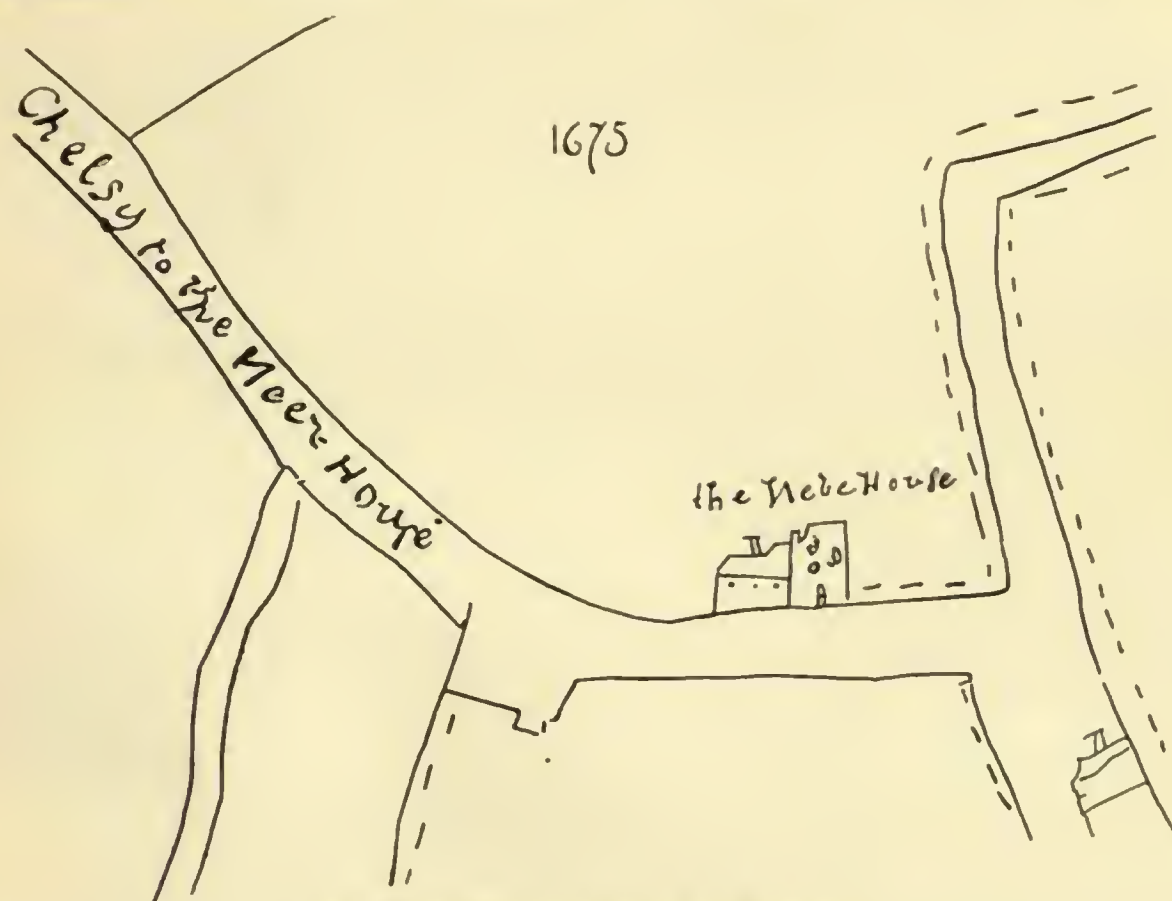


Fig. 2. Rough sketch of Neyte or Nete House in 1675.

Needless to say there is now nothing in these ordinary stuccoed brick houses to remind the passer of the abbot's retreat which once stood there, or of the pleasant gardens which remained long after the monastic brethren had ceased to tend them.¹

¹ Mr. Larwood has perhaps too ingeniously suggested that the name of the public-house, "The Monster," which now occupies the site (and by him said to be the only London tavern with this sign), is a corruption of "Monastery"; "Minster" is also conjectured. The present writer offers on a subsequent page what may possibly appear to be the more probable origin of the name. The house is now modern, but has a standing of at least a century and a half; once famous for its tea-gardens, its present notoriety is that of an omnibus station.

The situation of the manor-house being assured, we will now follow chronologically all that is learnt of its history.

The earliest reference found is in a cartulary of the Abbey under date 5th February, 1314, when Thomas, Vicar of St. Martin's-in-the-Fields, renounced all tithes in Neyte and Eybury.¹ This is the first of those occurrences which seem to indicate the disputed claims of the abbot.² The early history of St. Martin's is obscure; the parish is not supposed to have been constituted until thirty or forty years after the above date; yet here we have mention of a vicar who evidently had claimed tithes in Neyte and Eybury which the abbot had compelled him to renounce. Eventually, however, when St. Martin's parish was authoritatively constituted, about 1361 or a little earlier, Neyte and Eybury were included in it.

The abbot appears to have been temporarily dispossessed in 1320. It is found that at this date the Manor of Neyte was in the hands of the king, a somewhat bewildering fact until later its solution is discovered. At the Record Office, among the Ministers' Accounts, under dates 1320-2, are a number of writs, receipts, indentures, etc. in relation to the business of one Roger de Gretford, who in the documents is variously termed "bailiff of our lord the king at la Neyte", "guardian of our manor of la Neyte", "keeper (*custos*) of the King's manor of la Neyte", "bailiff of la Neyte near Westminster". The transactions relate to cattle which were collected at Neyte, and thence transferred to other places. Now, in the use of the place as a cattle-dépôt or stock-farm in 1320, and probably earlier, we seem to find the origin of its name: "La Neyte," a place for neat, meaning cattle or cows. The suggestion is even stronger in the later form "Neat Houses", equivalent to Cow Houses!³ The name may seem to us strangely inconsonant with the dignity of the manor-house of the abbots of Westminster, yet we know of other English mansions with homely names, and although we may not find "neat" as prefix, its equivalent "cow" heads a score of names in the gazetteer. Indeed, in the same county of Middlesex (parish of Hendon) there is a Cowhouse Manor (Hodsford and Cowhouse) which, moreover, was a possession of the same Abbey.⁴

The perplexing designation of la Neyte as the king's manor happily has its

¹ "Abstract of Charters in a Cartulary of Westminster Abbey in the possession of Samuel Bentley," 1836, Brit. Mus. [The MS. Abstract may perhaps be found at the College of Arms.]

² Even earlier, in 1308, Edward II by letters-patent (see Calendar) "exempted John de Benstede during life, in respect of his dwelling-house in Eye near Westminster, called Rosemont, from livery of stewards, marshals, and other ministers of the king. And at the same time he had licence to crenellate his house." "Rosemont" is suggestive of "Rosamund's land" (and "Rosamond's Pond") enclosed in St. James's Park, but that land seems to have been beyond the limits of Eye.

³ Professor Skeat, *Etymolog. Dict.*: "Neat, black cattle, an ox or cow (E.). *Neet*, both sing. and pl. (M.E.). *Neat*, unchanged in the plural (A.S.)."

⁴ *Monasticon Anglicanum*, ed. 1817, i. 326; Lysons, *Environs*, ed. 1810, ii. pt. i. 395.

explanation in the cartulary before quoted. Dated at Winchester 1st May 18 Edward II. (1325), the king gave an acknowledgement "that he did not hold the manors of Eybury and Neyte unless at the will of the Abbot and Convent of Westminster". And Edward III. in his first regnal year gave up (*liberavit*) "the manor of Eybury which his father had held". Further, at the same time an inventory was made of the goods of the late king at Eybury, and there were found at the place 60 cows and 500 sheep, and also a *columbarium* or pigeon-house. Here, again, we have evidence of the cattle-dépôt.

At the Public Record Office are found other bailiffs' accounts of "la Neyte" for the period during which it was in the hands of Edward II. and Edward III.¹ From these rolls some interesting information can be obtained. The rolls form a series referring undoubtedly to the same manor. The accountant is termed indifferently the "bailiff of the manor of la Neyte", or "la Neyte juxta Westminster";² the "bailiff of the king of his manor of la Neyte with Eybury" (*de la Neyte cum Eybury*).³ There was one manorial court, which in 1316-17 was held on Wednesday, the Vigil of SS. Simon and Jude [27th Oct., 1316], and Monday before the Feast of St. Gregory the Pope [7th March, 1316-17]. In 1324-5 this court is called the Court of Eybury. The issues of "the pleas and perquisites" of the court of the manor are returned yearly on the accounts; we find also the return of rents of free tenants and rents and works of customary tenants, showing clearly that "la Neyte" or "la Neyte with Eybury" was a manor and then formed only one manor. There was a moated house or grange at "la Neyte" at this time, to which King Edward II. seems sometimes to have retired. This house had a hall and an inner hall, a pantry and buttery, the repairs upon which are frequently referred to. On the roll for 1319-20 are items for the cost of the houses within the moat of la Neyte, including nails and iron for a post in the chamber next the king's chamber.⁴ Mention is also made of the garden at "la Neyte".⁵ There was another house or grange at Eybury, probably that later known as Eybury Farm, parcel of the same manor, the repairs upon which are from time to time accounted for.

It is curious to note that fifteen customary tenants of the manors of Staines and Laleham paid a composition in lieu of mowing "le Markedmed" in the Manor of "la Neyte".⁶ The river walls, which were probably of earth, required constant attention, and references to them frequently occur. The theory that the manor was a cattle-dépôt is borne out by these accounts. They show the great stock of cattle kept there and the large household which was maintained

¹ Ministers' Accounts (P. R. O.), Bundle 919, nos. 12 to 24.

² *Ibid.* Rolls, nos. 12, 13, 14, 17.

³ *Ibid.* Rolls, nos. 19, 20.

⁴ *Ibid.* Roll no. 17.

⁵ *Ibid.* Roll no. 13.

⁶ *Ibid.*

to look after it. Although much of the land was given up to pasture, as is to be expected in the low-lying district near to the Thames, yet there was a good deal of arable land, probably in the northern part of the manor, where the land rises.

Among the place-names occurring within the manor are the following: Twantiacres (Twenty Acres hereafter referred to), Pourtelane, arable land at Rodeland, Mabelycroft, and Wyndmellehul (Windmill Hill), la Loggemed, the wall from Mareflete to Abbotesbregge, pasture at Knytbrugg (Knightsbridge), Gosepole (Goosepool), and Markyngmed. The Tybourne is constantly mentioned, and [river] wall, garden, &c., at Burgoyne, possibly the same as Bulinga Fen, which has been identified with Tothill Fields.

Perhaps the most interesting reference to a place-name on these rolls is one that occurs on the roll for 1316-17: "Of 16s. 11d. from Thomas Chese and Gille (*Egidia*) his wife of the farm of 29 acres of land at Osolveston leased to them for term of their lives."¹ Osolveston is the old form of Osulveston,² the hundred in which a large district outside London is situated. Mr. Reginald A. Smith, F.S.A., states³ that at the presumed point of intersection of a road from Notting Hill "with Watling Street south of the Marble Arch once existed a Roman geometric stone". A stone similar to London Stone for long existed here, and was to be seen in 1822 a few yards south of Cumberland Gate, but was covered up in that year and was perhaps dug up when the Marble Arch was erected. This stone is said to have been known as Ossulstone, and at such a landmark we should expect the hundred court to have been held, thus giving rise to the name of the hundred. This spot would be within the Manor of "la Neyte" with Eybury.

The disputes as to jurisdiction had not been settled by 1344, when a murder having been committed by a tenant of land in "Eye by Westminster", the king granted the escheated lands to his barber-surgeon. The culprit, however, "was indicted before the coroner of the liberty of the Abbot of Westminster, taken by the Abbot's bailiffs, arraigned before them in the Abbot's Court, and there adjudged to be hanged." Whereupon the abbot entered upon the lands and held them as his escheats. The king claiming the same, a commission was appointed to make inquisition; but the judgement is not discovered.⁴ Probably this was the last dispute of the kind, for soon afterwards (between 1345 and 1361, says Mr. Saunders) the parish of St. Martin-in-the-Fields was constituted, and the abbot's Manor of Eye or Eia forming part of the parish may have been henceforth included within the franchise of Westminster.⁵

¹ Ministers' Accounts (P. R. O.), Roll no. 14.

² *Feudal Aids*, iii. 383.

³ *Victoria County History*, London, i. 32.

⁴ *Cal. Patent Rolls*, 1344, pp. 238, 297, 321.

⁵ Such is Mr. Saunders's solution of an obscure and tangled matter. He says also: "In 1393 a

"La Neyte," having been for some years in the king's hands, returned to the abbot in 1327; and there are signs of his living at the manor-house in Widmore's record (p. 89) that in 1338 Abbot Henley "remitted to the Convent nine dishes of meat, six conventual loaves, and three flagons of beer, which they used to furnish daily for the abbot's table when he was at Westminster or the manor-house of Neyte". In 1362 Nicholas Litlington, the renowned building abbot, succeeded Langham, then made Bishop of Ely, afterwards Archbishop of Canterbury, and eventually Cardinal. Very fortunately the new abbot's constructive talent was encouraged and enabled by the riches, amounting in modern value, it is said, to £200,000, bequeathed by his predecessor for the purposes of the Abbey. The west and south walks of the cloister, the abbot's house (now the Deanery) with its accessories "the Jerusalem" and other chambers, the great dining-hall and kitchen, still witness to the work of Litlington. Even as prior his building ability had been exercised, for Widmore relates (p. 102) that in the January before his election as abbot "a high wind had blown down most, if not all, of the Abbot's manor-houses, and that these he rebuilt within three years, and better than they were before". This closely touches our subject, for we may fairly suppose that the house at Neyte was at this time rebuilt by Litlington in style and capacity befitting the dignity of the abbots, and even on a scale as not long afterwards to attract the eye of princes seeking habitation. The name, however, "la Neyte" or "Neet House" was not changed, its old association with cattle remained.

The distance was but a direct mile from the Abbey, yet it was sufficient to ensure the abbot's peace whilst temporarily retired from the governing charge of the monastery. The situation, however, being remote and solitary, my lord's retinue was required to be of sufficient strength to deter marauding attack; his only neighbours at Neyte were the tenants of Eybury Farm, scarcely 300 yards distant to the north-west. The direct way from the Abbey to Neyte would be across the desolate Tothill Fields to their western verge marked by the Eye stream, *i.e.* the Aye or Tybourn Brook. That stream would be crossed by "the Abbot's Bridge", and the marsh thence to the moated manor-house would be traversed by "the Willow Walk", the willow-bordered causeway raised slightly above the general level. The marshy condition of the stretch of land, about half a mile in width, lying between the causeway and the Thames can be judged by the large fields and intersecting drains seen on the map of 1614; and that the Willow Walk was a causeway appears in the name "Cawsey Haw" given to a piece of ground adjoining it. The abbot's usual way, however, would probably be somewhat circuitously by Tothill Street, Petty France, and

charter was obtained from Richard II, which is enrolled in the Exchequer [probably now at the Record Office], and affirms that the abbot in right of his monastery was seised of the Manor of Westminster in the town of Westminster, and in the parish of St. Martin-in-the-Fields." *Archæologia*, xxvi. 236-9.

the road which became James Street as far as its meeting with the Chelsea Road, at which point the stream was again crossed by the Eye Bridge. Here was probably a small hamlet clustered about the Eye Cross, the "Cuford" mentioned in Abbey documents, the Cowford of Saxon times. Buckingham Palace nearly occupies the situation. At Eye Bridge the abbot and his company would turn south-west and follow the Chelsea Road about three-quarters of a mile to "Eybury" (or Eybury Farm, its later name), immediately after passing which a by-road to the left led to Neyte Manor-house. Another route, easier to travel by than the rough roads of the time, would be the smooth and "silent highway" of the Thames, and my lord abbot, with his attendant brethren, taking his barge at Westminster would be rowed up the river to a landing-place opposite Neyte, and then on his mule or on foot traverse the five hundred yards of meadow which lay between the river and the manor-house.

We may assume that the house after its probable destruction by storm had been rebuilt by Litlington in commodious and even stately fashion, and that he often resided in it during the twenty-four years of his abbacy. Obviously it was convenient during the rebuilding of the abbot's house at Westminster. At Neyte he closed his life, the 29th November, 1386; his body was carried to the Abbey for interment, but the obsequies are not found recorded as in the case of a successor a century and a half later.

Three years after Litlington's death John of Gaunt, Duke of Lancaster, and self-styled King of Castile, was returning from his fruitless pursuit of a crown, yet using the empty title in virtue of his wife's claim. His Savoy palace had been destroyed by Wat Tyler's rebels eight years previously, and being, as he wrote, yet destitute of a dwelling convenient to the Parliament to which he had been summoned, he besought the abbot, William of Colchester, for the temporary use of Neyte Manor-house. His letter making this request is fortunately preserved with the Abbey muniments; its interest is not lessened by its quaint old French and dubious orthography:

Depar le Roy de Castille et de Leon, Duc de Lancastre. Tres cher en Dieu, et nostre tres bien ame. Nous vous salvons tres sovent, et porce que nous sumes comandez par nostre tres redoute seigneur le Roy pour venir a cest son prochein Parlement a Westminster, et que nous y duissions estre en propre person, toutes autres choses lessees en cide et secour del roialme Dengleterre, et sumes unqore destitut de lieu convenable pour nous et nostre houstell pour le dit Parlement, nous prions tres cherement et de cuer, que vous nous veuillez suffrer bonement pour avoir vostre manoir del Neyt pour la demoere de nous et de nostre dit houstel durant le Parlement susdit. En quele chose fesant tres cher en Dieu et nostre tres bien ame vous nous ferrez bien graunt ease et plesaunce, paront¹ nous vous voloms especialment bon gree savoir et par tant faire autre foiz pour

¹ pront = paront [?].

vous et a vostre request chose agreable de reson. Et nostre seigneur Dieux vous eit touz jours en sa tres seinte garde.

Donne souz nostre prive seal a Narbourne le xxvii jour de Septembre [1389].

[Endorsed] A nostre tres cher en Dieu et tres bien ame labbe de Westmonster.¹

It is presumed that the Duke's wishes were met, as refusal would scarcely have been salutary.

Half a century after John of Gaunt's death there was another royal occupation of Neyte, it being on record that the Duchess Cecily (Nevill), wife of Richard, Duke of York, the White Rose leader (great-nephew of John of Gaunt), here in November, 1448, gave birth to John their fifth son, who died young.²

We find also that the unfortunate Dame Alianore Cobham (Duchess of Gloucester), persecuted on a charge of sorcery and witchcraft, was detained at Neyte three days before final banishment to the Isle of Man; this in January, 1443 (n.s.).³

A lease of the Manor of Eybury was granted by Abbot John Islip in 1518. In this he conveyed to Richard Whasshe for a term of thirty-two years

the Manor of Eybury with all lands and appurtenances excepting certain closes called the "Twenty Acres", *lying opposite* the Manor of Neyte on the south, and "the Abbot's Mead", with a pasture called "le Calschaw" (Causeway Haw), *lying off* the eastern part of the said Manor of Neyte. The annual rent was £21, and there were several obligations. Eighteen cartloads of good hay were to be cut and carried into the Manor of Neyte for the Abbot's use, part at the tenant's expense, part at a fixed price. At Christmas a boar worth ten shillings was to be provided. All fuel required for the Abbot's use was to be got and carried from the Thames bank to the Manor of Neyte at one penny per cartload. A weekly cartload of necessities for the hospitality of the Abbot. The transport of goods from the Manor of Neyte to those of Hendon and Laleham. The repair of all buildings and sheep-folds. The tenant to have wood from the Manor of Eybury required as "heybote, ploughbote, cartebote and fyerbote", but all loppings of trees growing on the reserved land and in the Manor of Neyte are excepted for the Abbot's use. The tenant is prohibited from conceding the manor and other premises to any person without consent of the Abbot. The Abbot has power in case of failure of rent, or delivery of the boar or the hay, to distrain for same after forty days. The lease was given at the Chapter House of the Abbot and Convent at Westminster, the sixteenth day of in the eighteenth year of the reign of King Henry VIII.⁴ (See Appendix I.)

One other event only is there to notice: the death at Neyte of Abbot John Islip in 1532. He was virtually the last of the abbots, for his successor, William

¹ The letter of John of Gaunt is exhibited in the Chapter-house of the Abbey. As transcribed by Joseph Burt, Assistant Keeper of the Public Records, it is printed in *Archaeological Journal*, xxix. 144.

² William of Worcester, *Liber Niger*, ed. Hearne, 1728, ii. 424, 526.

³ *The Brut, or Chronicles of England*, pt. ii. 482; Early English Text Soc., 1908.

⁴ "Conventual Leases," No. 53. For the discovery of this and other papers, and for much kind assistance, the writer is greatly indebted to Mr. Salisbury of the Public Record Office.

Boston or Benson, who made the surrender and became dean, is scarcely allowed on the roll. Islip had governed the monastery thirty-two years, and his ability and energy had been exercised on the fabric of the noble church. At the eastern end the chapel of Henry VII. had been completed under his supervision; the western end had also been finished, the exterior niches filled with statuary, and the towers raised to a height a little above the eaves of the nave;¹ communication between the abbot's house and the church was made by a passage terminating in the small gallery yet seen overlooking the nave at its south-west end; and finally the Islip chapel was built for the abbot's sepulchre. In the first years of his abbacy, during the reign of the religious-minded Henry VII., he had witnessed the abbey in the full dignity of ceremony and authority; and he had lived to see the time of abasement and spoliation. In the year of his death (1532) the greed of Henry VIII. had already deprived the Abbey of much property in its immediate vicinity, viz. land and houses for the making of St. James's Park and the completion of Whitehall; and this, done under the pretence of exchange, was but the prelude of further and entire confiscation. So it was no wonder that this calamity having befallen him, and foreseeing more, the poor abbot, like King Hezekiah in misfortune, became sick unto death, much needing the consolations of his faith as materially depicted in the beautiful obituary roll which has fortunately come down to us. He died "at Neyt beside Westminster, the 12 day of May, being Sunday, about four or five of the clock in the afternoon, the twenty-fourth year of King Henry VIII."

The record of his obsequies, deposited at the College of Arms, is exceedingly interesting. We are admitted into Neyte Manor-house, where, in the large parlour hung with black cloth and the escutcheons of the abbot and monastery, was set the chest containing the cered body of the deceased covered with a rich pall of cloth of gold tissue. By it four great tapers burned day and night; around were the constant mourners and watchers, and from time to time masses for the dead were recited. There the body lay four whole days, and on Thursday about two of the clock came the fathers of the house, with the monks, and the Abbot of Bury St. Edmunds in pontifical vestments. And the appointed offices having occupied an hour, about three o'clock the long procession set out for Westminster. First were two conductors with black staves to keep back the people who lined the way. Then in succession came the cross-bearer, four orders of friars from Canterbury, brotherhoods of priests and clerks of the pope, the clergy of St. Martin's and St. Margaret's, the Abbot of Bury *in pontificalibus* with his assistants in goodly rich copes, gentlemen gowned and hooded in black, Richmond and Lancaster heralds in their tabards of the king's arms. Preceding the coffin came twenty-four poor men, habited in black

¹ Thus indicated in Dart's *Westminster Abbey*.

gowns and hoods and bearing torches. The coffin was borne by six yeomen of the deceased, and other six relieved them. The banner of Our Lady was carried, and surpliced priests bore branches of white wax. Twelve yeomen carrying staff-torches were about the corpse, and immediately after followed the Lord Windsor as chief mourner, with six others, two and two. Then more gentlemen, and the yeomen and farmers of the deceased abbot, all habited in black. Lastly, men and women of Westminster and other places ended a procession so long that "the trayne was from Neyt until Toutell Street", a full mile.

Arrived at the Abbey the body was received by the Abbot of Bury and his assistants and carried into the quire, where it was set under a goodly hearse "with many lights and majesty"; and the mourners took their places. Then the *Dirige* was solemnly sung by the monastic brethren, and after other ceremonials were completed the mourners proceeded to a chamber over the chapel of the deceased, where they partook of "spiced bread, sacket, marmylate, spiced plate, and divers sorts of wine in plenty". And during the funeral feast "they of the church did bury the deceased in the chapel of his building, which was hung with black cloth garnished with escutcheons, and over his sepulchre a pall of black velvet, and two candlesticks with angels of silver and gilt, with two tapers thereon, and four about the corpse burning still". Thus in solemn state was buried the virtually last of the Westminster abbots.¹

Four years after Islip's death the king, whose rapacity had fed and grown on his first spoils, again seized, under legal semblance of exchange, grant, and Act of Parliament, all the property of the Abbey beyond its immediate precincts. Boston's grant of 1536 follows as Appendix II to this paper; at present we will trace the fate of Neyte Manor-house, then surrendered with the rest. It seems to have remained in the king's hands until his death, soon after which it was given, in 1547,² by the boy-king Edward VI. or his Council, to Sir Anthony Browne, K.G., one of the magnates of the time grown rich on monastic spoils. He had already Battle Abbey, Cowdray, and much else, and may have coveted Neyte as a residence near to Court; but he did not long retain it, for death claimed him the year after his latest acquisition. Less than half a century later Neyte, having reverted to the Crown, is found, with 108 acres of land attached, in the tenancy of farmers, by name Linde and Turner, who are heard of because of complaint brought against them before Lord Burghley, the queen's high steward, on the ground that the 108 acres being mostly Lammas land (*i.e.* common during Lammas-tide) they had enclosed and divided it with

¹ The account of the funeral is fully quoted in *Monasticon Anglicanum*, ed. 1817, i. 278, and, with facsimile reproductions of the Obituary Roll, in *Vetusta Monumenta*, iv and vii.

² Roll 1 Ed. VI, pt. i, mem. 15.

new hedges.¹ This was in 1592; the tenant of the neighbouring and much larger Eybury Farm was similarly arraigned, but the judgement does not appear.

In 1614 the old manor-house, to judge from the plan we have noticed, appears to have stood intact within its moat. A few years later it had become a place of entertainment for strolling Londoners, which character it maintained until its extinction. Curiously, information to this effect (directly derived from Mr. Wheatley's *London*) is contained in a play of the time. For in Philip Massinger's *City Madam*, licensed 1632, is extolled "The Neat House for musk-mellons and the gardens where we traffic for asparagus" (Act III, sc. i). The abbot and his monks had left a fruitful garden here, the forerunner of the "Neat House Gardens" which eventually covered the whole area between the Willow Walk and the Thames; and as the gardeners required houses "Neyt, or Neat House" became expanded into "Neat Houses" as the name of the locality.

Next we have our friend Pepys here, and he, ever seeking enjoyment, finds it five times during the years 1661-1668 at the "Neat Houses". He it is who first writes the name in the plural (Massinger gave it in the singular), and from the entries in his *Diary* it is evident that other dwellings had sprung up, and that his visits were not limited to one spot. The first recorded visit is in 1661. He had taken coach to Chelsea to see the lord privy seal on business, and by some mischance, the coach not having waited, he with his companion had to walk back to Westminster. So taking the Chelsea Road they by and by "came among some trees near the Neat Houses"; the spot was probably where the by-road led off to the manor-house. Here some whistling "gave them suspicion", perhaps an idea of highwaymen; but it was only the signal of a friend, who joined them in their walk. Once he takes boat and goes by river to "the Neat Houses over against Fox Hall (Vauxhall)" to see a man dive; that of course was some distance from the manor-house. Another time coming down the river from Barnes Elms he lands to buy a melon, doubtless of the kind that the dramatist had appreciated. And once in convivial mood after the play, he with his wife and Mistress Knipp "went abroad by coach to the Neat Houses in the way to Chelsea, and there in a box in a tree (*sic*) they sat, and sang, and talked, and eat"; but the rose was not without a thorn to poor Mistress Pepys, who, he adds, was "out of humour, as she always is when this woman [Knipp] is by". This time at least the place seems to have been the monks' old garden, the manor-house, or a remnant of it, probably still standing. Pepys's last mention is in May, 1668, when he "met Mercer and Gayet and took them by water first to one of the Neat Houses, where they walked in the gardens, but [finding] nothing but a bottle of wine to be had, they, though pleased with the gardens,

¹ Strype, ed. Stow's *Survey*, bk. vi. 78.

went to Vauxhall, where with great pleasure they walked; and then to the upper end of the further retired walk, where they sat and sang, and brought a great many gallants and fine people about them, and upon the bench they did by and by eat and drink and were very merry". Such were the relaxations of the distinguished public servant, Mr. Pepys.

One of the Neat Houses of entertainment was kept by old Mistress Gwynn, mother of Nell, the king's favourite. Her untimely end is all we learn of her; it is recorded in two of the journals preserved, and thus in *The Domestic Intelligencer* of 5th August, 1679: "We hear that Madam Ellen Gwin's mother sitting lately near the waterside at her house by the Neat Houses, near Chelsea, fell accidentally into the water, and was drowned." Two printed sheets of the day now found in the King's Library, British Museum, satirically relate the occurrence. One is a metrical "Elegy upon the never to be forgotten matron Old Madam Gwinn who was unfortunately drowned in her own fishpond on the 29th of July 1679". The other is a prose account, equally satirical and unflattering to the reputation of the poor woman, whose death is attributed as much to brandy as to water.

The plan of 1675, from which we have taken the rough indication of Nete House in elevation, shows that at this time it, and the two large fields always attached, were owned by "Edward Peck, Esq." The owner of the neighbouring Eybury Farm was Mistress Mary Davies¹, a child-heiress of ten years old, whose marriage the next year with Sir Thomas Grosvenor led to the formation of the great Grosvenor Estate. That estate was gradually extended over all the land between the Willow Walk and the Thames, excepting Nete House and the two large fields above mentioned. This extension is clearly evident in an excellent plan of 1723, made expressly to show the then extent of the Grosvenor property. To avoid reduction of scale that portion only is now reproduced in which we are expressly interested.

The figures distinguish the several parcels, etc. enumerated in the abbot's grant of 1536, and correspond with those in the list given as Appendix II to this paper. No. 1 is the parcel containing Neyte Manor-house, which, or part of which, may have remained as late as 1723, the date of the plan. No. 2 is the field called "the Twenty Acres". No. 3 (here divided) is "the Abbot's Meadow". These two fields were always attached to the manor-house² (we observe "Balywick of Neat" written on No. 2), and they, with No. 1, did not belong to Grosvenor in 1723, but to a Mr. Stanley.³ No. 4 (marked "Eybury

¹ "Dammison" on the plan is presumed to be a mistake for Davies.

² These fields, nos. 1, 2, 3, are shaded on the plan.

³ Probably of that branch of the Stanley family sometime seated at Stanley House, Chelsea. See Lysons, *Environs*, ii. 124. "Stanley Place" is now found close to the site of Neyte Manor-house.

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Manor") is the Eybury Farm lying a little to the north-west of Neyte. The vicarage and schools of St. Michael's (Chester Square), and Ebury Square close by, now cover the ground ; but the actual site of the farm-house was along the road on the north-east side of the modern church of St. Philip.



Fig 3. South portion of the Manor, from a map of 1723.

The causeway called "the Willow Walk" stretches on the map over the marsh between Tothill Fields and the manor-house, on reaching which a loop is made around the premises ; the loop is still apparent, though Warwick Street, which has taken the place of the Willow Walk, is now continued westward. The Eye stream, No. 10, was crossed by "the Abbot's Bridge".

In a plan of 1727 the house is gone, and the ground vacant on which it had stood, though still belonging to Mr. Stanley. The Chelsea Waterworks had had their beginning in 1722, a canal cut the by-road between Nete House and Eybury Farm, and "Chelsea Bridge", a wooden structure, now formed the connexion.

On Rocque's maps of 1746 "The Neat Houses", a group of disconnected buildings, occupy the site.

A few years later gardens were opened here which went by the curious name "Jenny's Whim". Of Jenny nothing is known but her "Whim", which seems to have consisted of fantastically laid out gardens, where, at certain spots, the unsuspecting visitor treading on a spring would be startled by the sudden appearance of a figure, angel or monster, confronting him. These gardens were for some time fashionable, and visited even by such exquisites as Horace Walpole; but before their extinction, towards the end of the century, they had become disreputable. Their successor was "The Monster" and its tea-gardens (see footnote, *ante*), for which it is now suggested that one of Jenny's monster figures may originally have served as the sign.¹

Of the manor-house there is nothing more to relate; its very site passed out of knowledge. As has been said, at the critical period of its demolition it was unrecorded by Strype, who, in 1720, only noticed the luxuriant market-gardens of the Neat Houses which supplied London and Westminster with "*Asparagus, Artichokes, Cauliflowers, Musmelons*, and the like useful Things that the Earth produceth". The gardens flourished more than a hundred years later. On Cary's fine map of 1819 they are represented in full development, but in 1834 they are diminished, and streets are being laid out. Not, however, until 1840 were the gardens quite obliterated, and their area overspread by the rising streets of Pimlico. The Willow Walk had become Warwick Street about 1844, though not until 1869 was that street driven straight on towards the bridge over the railway and canal, the loop continuing as of old to enfold the site of Nete Manor-house.

The great Manor of Eye or Eybury was intersected by Knightsbridge highway, north of which lay about 482 acres, south of it about 608 acres. Of the northern moiety Hyde occupied about 320 acres, and the remainder included, as we learn in the abbot's grant of 1536 (Appendix II), "a great close belonging unto Eybury," supposed to be now represented by Grosvenor Square, and the Brick Close, lying west of the Conduit Mede, which is well known to have lain along Bond Street. Further north, along the Oxford highway, were various

¹ Walford, in *Old and New London* (v. 45), quotes all that is recorded of "Jenny's Whim", and he reproduces from the Crace Collection a view in 1750 of Jenny's Whim Bridge; the wooden bridge over the canal was for a time so called. "The Monster" in 1820 is also represented.

Eybury tenancies, the holders of which had to be compensated for damage when the Corporation of London in 1439 were permitted by the abbot to lay pipes for conducting water from the Paddington springs.

The southern moiety of Eybury, the 608 acres, appears to have been divided even before the forced surrender of 1536. We do not learn what extent of Eybury Richard Whasshe had by his lease of 1518, though from the exemptions of the great fields, the Twenty Acres and the Abbot's Meadow adjoining Neyte Manor-house, we surmise that the tenant had the remainder of the land lying north of the river. When, however, in the deed of 1536 we read of "the Manor of Eybury", said to have been in the tenure of Richard Whasshe, we



Fig. 4. Ebury Farm, or Lordship House, 1675. The road which passes the house is now Buckingham Palace Road, and that on the left hand Pimlico Road.

conceive that reference is intended to Eybury Farm. Half a century later we have further information regarding this farm. In 1592 the name of Queen Elizabeth's tenant is still Whasshe, though probably son of the former tenant. He had 430 acres of meadow and pasture, perhaps arable land besides. Also a large portion of ancient Eybury had been taken to form a distinct farm of Neyte, which, as before noticed, contained 108 acres.

The farmstead of Eybury or Ebury lay along the Chelsea Road, scarcely 300 yards north-west of Neyte House. On the plan of 1614, in a square enclosure, some buildings surround one of modest size probably representing the dwelling-house. It is simply designated "Eybury", and thus named in the midst

of the manor it may be thought to have originally represented its "bury" or manor-seat afterwards transferred to Neyte. Sixty-one years having elapsed we have it again in the plan of 1675, a portion of which is now reproduced.

The house appears to have been rebuilt, and, if we may trust the little roughly sketched elevation with three tiers of windows, it has now the importance of three stories. It stands by the roadside with garden attached, and against it is written, "Lordship House and Garden." This probably was the residence of Alexander Davies, the father of the heiress who, as already noticed, brought the estate to the Grosvenors, for on his tomb in St. Margaret's churchyard Davies (or Davis) is described as "of Ebury". The descent of the farm from Whasshe to Davies has not been traced. The latter had died in 1665, and, his widow having remarried, the child-heiress at the date of our plan was probably living with her relations, the farm having as tenant the Edward Boynton named in the table. The next year (1676) little Mary Davies, at the age of eleven, became the wife of Sir Thomas Grosvenor, Baronet, of Eaton in Cheshire. The estate grew, and its extent almost half a century after the marriage has had our attention as shown by the reproduced map of 1723. At that time the stated owner was "Dame Mary Grosvenor", widow of Sir Thomas (who had died in 1700), but she was then mentally deranged, and her son, Sir Richard, was virtually proprietor. It is not learnt that he occupied "Lordship House", Ebury, but it was not until three years after his death (in 1732) that Peterborough House, Millbank, became the family seat.

The farmstead stood intact in 1746, when Rocque miswrote it on his map as "Avery Farm", a mistake which has been perpetuated. But London was drawing nigh, there had been building at adjacent Neyte, and Jenny's Whim public gardens were soon to attract the town-folk. Bowles, in 1787, showed that the farm had been obliterated; the new houses of "Bridge Row" occupy the site. Horwood, in 1795, showed "Avery Farm Row" and other rows, while the Chelsea Road at this place had become "Belgrave Place", a name of true London import. To-day the site of the farm is a busy commercial quarter, curiously retaining both the name Ebury and Avery its corrupted form. A chief factor in the change has been the Brighton Railway, which has taken the course of the Grosvenor Canal, obliterating it; and a modern great iron viaduct now serves the wide thoroughfare where formerly Jenny's Whim frail wooden bridge sufficed. There is now nothing of the picturesque in the noisy sterile streets, but something has been done to relieve monotony by the planting of trees around the vicarage and schools of St. Michael's (Chester Square), which occupy the site of the old farm; while, close by, little and unfashionable Ebury Square preserves the name and an open garden-space, with a fountain and tree-shaded seats for weary Londoners.

The origin of Hyde, which appears to have been a sub-manor of Eia or Eyebury, is undiscovered. Its boundaries are those of Eia on the north and west, namely the Uxbridge Road and the Westbourne stream now merged in the Serpentine; the old course of Watling Street, preserved in Park Lane, lies on the east, and the Knightsbridge Road on the south. Thus it forms roughly a quadrilateral taken out of Eia at its north-west angle, and its identity has been preserved in Hyde Park, which, however, was made to extend far beyond the western limit of the manor, and covering part of Knightsbridge and Westbourne, originally reached almost to Kensington Palace.

In the Feet of Fines for Middlesex¹ there are several mentions of "la Hyde" as the cognomen of tenants: thus "Geoffrey de la Hyde" in 1256. It is also met with in the cartulary before cited purely as a land name. We are safe, therefore, in the belief that at an early time the district was known as "la Hyde". And in the absence of fact we may conjecture that the origin is implied in the meaning of the word. In the course of years the area would be extended, yet the original name, "The Hyde," might have been retained until the time when it comes under our cognizance, with an area of about 320 acres.

Of incidents beyond legal transactions during monastic times we have scarcely any. Widmore discovered that Abbot Litlington (1362-1386) improved the estate of the Convent at Hyde, and we have already referred to the jealous care with which Abbot Harweden (1420-1440), when granting to the City of London springs at Paddington, and permission to lay conducting pipes through Paddington and Eybury, prohibited any intrusion into "the Manor of Hyde". There was "the ancient supply of water to the Abbey of Westminster", and any interference with it would be met by the resumption of the Paddington springs.²

When Hyde was seized by the king in 1536 it was thus described in the Act:

The site, soil, circuit and precinct of the Manor of Hyde, with all the demesne lands, tenements, rents, meadows, and pastures of the said manor, with all other profits and commodities to the same pertaining, which be now in the tenure and occupation of one John Arnold.

Thus the abbot had his yeoman-tenant at Hyde as at Eybury. We should like to know more; whether John Arnold had the whole manor, which contained,

¹ *Calendar to the Feet of Fines of London and Middlesex*, by W. J. Hardy and W. Page.

² Rymer, *Foedera*, ed. 1710, xi. 29-32. Mr. A. Morley Davies, in an excellent study of "London's First Conduit System" (*Transactions of the London and Middlesex Archaeological Society*, 1907), shows by an authentic diagram the course of the conduit of 1439. Crossing the highway where is now the Marble Arch, the corner of Hyde Manor is avoided, and the conduit is laid in the land along the south side of the highway now Oxford Street. As evidence of the extension of the Manor of Eybury to the highway it is interesting to notice in the Agreement of 1439 that it was to the abbot's tenants of Eybury, as well as to those of Paddington, that compensation had to be paid.

as has been said, about 320 acres, and of what they consisted. The term "messuage" is absent (as it was in the Eybury grant), and perhaps in "tenements" we scarcely imagine a manor-house, though "demesne lands" may imply a residence of some importance. There were meadows and pastures of course, but there is no specific mention of woods, springs, or the pools heard of when the park was sold in Commonwealth times. That, however, was more than a century after bluff Henry had laid wide his hunting-ground, and built his lodges and banqueting-house. With that transformation we are not now concerned; it is the history of Hyde Park which has had many writers. We hope for further knowledge of Hyde when the complete arrangement of the Abbey muniments, now progressing, has been accomplished.

In concluding this paper, it is the hope of the writer that in presenting previously known facts with those discovered by recent search, an account of the district, fuller and more accurate than previous accounts, has been rendered. He would venture to think that something has been done in dispersing the erroneous theory of three manors, Neyte, Eybury, and Hyde, and in ending the fruitless search for a distinct manor of Neyte by showing that the name of the Abbot's seat was applied to the one manor, the ancient "Eye next Westminster" or in its developed form Eybury; so that "Neyte cum Eybury", with the sub-manor Hyde, may serve as a frame into which may be fitted the further details yet to appear as search is continued.¹

¹ The view that the word manor in the case of Neyte had no more than the significance of mansion, or as in French "manoir", which was advanced by the writer when reading this paper, is now withdrawn. In the case, however, of the late dated lease already referred to, in which certain fields are said to lie opposite and off the Manor of Neyte, and certain produce was to be delivered into the manor, it is evident that the manor-house is intended.

APPENDIX I

ABBOT JOHN [ISLIP] TO RICHARD WHASSHE, A LEASE OF THE MANOR OF EYBURY, 1518.

(Public Records, King's Remembrancer, Conventual Leases, 53.)

[Abbreviations are here extended. The MS. is torn and decayed.]

Hec indentura facta inter Johannem permissione divina Abbatem Monasterii beati Petri Westmonasterii et ejusdem loci conventum ex parte una Et Ricardum Whasshe ex parte altera Testatur quod predicti Abbas et Conventus ex eorum nomine assensu . . . totius Capituli sui concesserunt tradiderunt et ad firmam dimiserunt prefato Ricardo situm Manerii de Eybury cum omnibus terris dominicalibus pratis pascuis et pasturis una cum duabus clausuris jacentibus et earum pertinenciis un[iversis] nuper dimissum Willelmo Bate Exceptis et omnino reservatis prefatis Abbati et conventui et successoribus suis quodam clauso vocato le twenty acres jacente ex opposito Manerii de Neyte ex parte australi ejusdem Quod quidem [quatu]rdecim acras Accciam uno prato vocato Abbottes mede et una pastura vocata le Calsehaw jacentibus ex parte orientali dicti Manerii de Neyte Necnon omnibus Redditibus et serviciis sectis Curie Visus Franci plegii et eorum proficuis ad Regalitatem pertinentibus **Habendum et tenendum** situm Manerii predicti cum omnibus terris dominicalibus pratis pascuis et pasturis et ceteris premissis (Exceptis preexceptis) prefato Ricardo executoribus et assignatis suis A festo Sancti Michaelis presencium usque ad finem et terminum triginta et duorum annorum extunc proximo sequentium et plenarie complendorum **Reddendo inde** annuatim prefato Abbati vel successoribus suis aut ejus certo assignato Viginti et unam libras ad duos anni terminos Videlicet Annunciacionis beate Marie Virginis et Sancti Michaelis Archangeli per equales porciones Unacum sex carectis boni feni falcandi levandi et cariandi in Manerium de le Neyte predictum sumptibus et expensis assignatis ad usum predicti Abbatis et successorum suorum [*interlined*, Et eciam cariabit alias sex carectas boni feni] precio cujuslibet carecte iiij^s iiij^d Necnon alias sex carectas boni feni deliberabit in Manerium de Neyte ad usum ejusdem Abbatis et successorum suorum quolibet anno precio cujuslibet carecte executores et assignati sui providebunt et dabunt dicto Abbati et successoribus suis unum aprum erga Festum Natalis Domini singulis annis durante termino predicto precii ad minus x^s vel x^d argenti. **Et predictus** Ricardus executores et assignati et expensis omnia et singula focalia ad usum dicti Abbatis vel successorum suorum Vide licet a Ripa Tamesie usque predictum Manerium de Neyte durante termino predicto et habebunt pro qualibet carecta i^d **Necnon** idem Ricardus executores et

semel in septimana unam carectam de diversis necessariis Hospicii predicti Abbatis vel successorum suorum tociens quociens necesse fuerit a Monasterio Westmonasterii usque Manerium de Neyte et e contra durante termino predicto **Ac insuper** sui cariabunt unam carectam de diversis necessariis Hospicii prefati Abbatis tociens quociens contingat prefatum Abbatem et successores suos remove a predicto Manerio de Neyte usque Manerium de Hendon et a dicto Manerio de Neyte vel Laleham durante termino predicto **Aceciam** predictus Ricardus executores et assignati sui omnia domos et edificia eidem Manerio spectantia que cooperta sunt cum stramine unacum longa Barcaria durante termino predicto reparabunt [ma]nutenebunt sumptibus suis propriis et expensis Et predictus Abbas et successores sui quascumque alias reparaciones et onera ad dictum Manerium necessaria preter escuracionem fossatis et reparacionem haiis sumptibus eorum expensis propriis supportabunt durante termino predicto **Proviso semper** quod si quid in domibus seu edificiis dicti Manerii per prefatum Ricardum executores et assignatos suos per servientes suos per animalia sua quecumque frangantur sive impeiorantur sui omne id quod sic defractum sive impeioratum fuerit emendabunt sumptibus suis propriis et expensis **Et idem** Ricardus executores et assignati sui habebunt competenter heybote ploughbote cartebote et fyerbote de sp de Eybury sive crescentia in eodem Manerio et non alibi expendenda Exceptis et Reservatis prefato Abbati et successoribus suis omnibus loppis de arboribus crescentibus super terras prius sibi reservatas et Manerio suo de la Neyte prefato Ricardo dictum Manerium de Eybury cum ceteris premissis alicui extranee persone ad firmam tradere sive concedere aut terminos suos aliquo modo vendere durante termino predicto sine speciali licencia predicti Abbatis et forisfacture clamei sive status sui in predicto Manerio et ceteris premissis cum suis pertinenciis **Et non licebit** alicui executori seu assignato dicti Ricardi post ejus decessum cessacionem concessionem seu dimissionem premissa cum suis pertinenciis intrare sive aliquo modo occupare Residuum Annorum termini predicti absque nova concessione predictorum Abbatis et Conventus sub forma omnium convencionum in hiis indenturis contentarum cessacionem concessionem seu dimissionem qualitercumque factam vel faciendam uni dictorum executorum seu uni assignatorum in ejus nomine proprio sub sigillo Communi dictorum Abbatis et Conventus secundum consuetudinem usitatam in f [foris]facture clamei sive status sui in predicto Manerio et ceteris premissis cum suis pertinenciis **Et predicti** Abbas et Conventus volunt et concedunt pro se et successoribus suis quod ipsi dabunt uni executorum seu uni assignatorum dicti Ricardi termini predicti sub forma omnium convencionum in hiis indenturis contentarum cum ad hoc specialiter rogati fuerint per unum dictorum executorum seu unum assignatorum infra duos menses supradictos **Et si contingat** predictam Annualet aut firmam predicti Apri et feni superius expressatam a retro fore in parte vel in toto post aliquod Festum festorum predictorum per quadraginta dies Extunc bene licebit prefato Abbati et successoribus suis in predictum situm de Eybury omnibus suis pertinenciis intrare et distringere et districciones que sic captas licite asportare abducere fugare et penes se retinere quousque de predicta firma cum arreragiis ejusdem si qui fuerint predicta firma a retro fore in parte vel in toto post aliquod Festum festorum

predictorum quo solvi debeat per quarterium Annum et nulla sufficiens districcio ibidem invenire non poterit quod tunc bene licebit hac parte deputato in predictum situm Manerii et cetera premissa cum omnibus et singulis suis pertinenciis reintrare et illud ut in pristino statu suo rehabere et possidere dictumque Ricardum executores et assignatos indentura in aliquo non obstante. **Et cum** predictus Ricardus per scriptum suum obligatorium de data presencium teneatur et obligatur prefato Abbati in quadraginta libris sterlingorum sicut [con]fectum plenius continetur **Vult tamen** idem Abbas et concedit pro se et successoribus suis Quod si predictus Ricardus et assignati sui bene et fideliter teneant et perimpleant omnes Quod tunc presens scriptum obligatorum pro nulla habeatur alioquin in omni suo robore stet et effectum **Et predictus** Abbas et successores sui predictum situm Manerii de Eybury predicti prefato Ricardo executoribus et assignatis suis modo et forma superius recitatis durante termino predicto contra omnes gentes warantizabunt per presentes **In cujus** rei testimonium sigillum dicti Ricardi hiis indenturis alternatim sunt appensa **Datum in domo** capitulari predictorum Abbatis et Conventus Westmonasterium predictum sextodecimo die et Anno Regni Regis Henrici Octavi decimo. Et predictus Ricardus quociens cariaabit percipiet de dicto Abbate et successoribus suis qualibet die dominica tam in esculente quam in poculente

APPENDIX II

LANDS, ETC., GRANTED BY ABBOT BOSTON TO THE KING, 1 JULY, 1536,
AS STATED IN THE ACT 28 HENRY VIII., CAP. 49. *Statutes of the Realm*, iii. 709.

With notes, and references to the plan, plate VIII.

All that site, soil, circuit, and precinct of the Manor of Nete within the compass of the moat, with all the housings, buildings, yards, gardens, orchards, fishings, and other commodities in and about the same site.¹

One close lying over against the said site, called *Twenty Acres*.²

A meadow called *Abbot's Meadow*, with a piece of ground called *Cawey Hall*,³ containing in all 13 acres.⁴

¹ 1 on plan. The extent "within the compass of the moat" was about 2 acres, which with 3½ acres "about the same site" made 5½ acres as the whole area of the site.

² 2 on plan. The large field lying between the manor-house and the river. It was always an adjunct of the manor-house.

³ For "Hall" read "Haw", i. e. *Cawsey* or *Causeway Hare*.

⁴ 3 on plan, in three divisions. The large triangular parcel on the south side of the Willow Walk or Causeway. This field was also an adjunct of the manor-house eastward.

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18 acres of meadow called *Market Mede*, next the Horseferry over against Lambeth.

32 acres of arable land in divers places.¹

3 acres of meadow in *Tenys Mede*.²

4 acres of land and 1 acre of meadow, now in the holding of John Lawrence.

2 acres of land in 3 parcels near the Eye,³ now in the tenure of the same John Lawrence.

2 acres of meadow lying in *Tenys Mede*, now in the tenure of the same John Lawrence.

2 acres of meadow lying in *Market Mede*, now in the tenure of John Clarke.

2 acres of land in *Charyng Crosse Felde*, now in the tenure of Thomas Swalowe.

All which premises lying and being in the towns and parishes of Westminster and St. Martins in the Felde, in the County of Middlesex.

One messuage or tenement in *the King's street* in Westminster called *the Lambe* with the yard and wharf thereto adjoining, late in the tenure of John Pomfrett.

3 acres of meadow in *Chelseth Meadow* next the brook in the County aforesaid.⁴

The advowson and parsonage of the *Church of Chelsethe*.

The Manor of *Totyngton* with all and singular the appurtenances, with all those lands, tenements, and other hereditaments now in the occupation of Hugh Mannyng.

The rectory and parsonage of the *Church of Totyngton* in the said County of Mydd., with all the tithes, oblations, offerings, pensions, portions, and other profits and advantages whatsoever they may be, being part or parcel of the said parsonage, or to the said parsonage pertaining or any way belonging.⁵

The site, soil, circuit, and precinct of the *Manor of Hyde*, with all the demesne lands, tenements, rents, meadows, and pastures of the said manor, with all other profits and commodities to the same pertaining or belonging, which be now in the tenure and occupation of one John Arnold.

The *Manor of Eybury* with all the lands, meadows, and pastures, rents and services, being part or parcel thereof, or reputed or taken as part or parcel thereof, and two closes, late parcel of the farm of *Longmore*, in the County of Midd., which Manor of Eybury with the said two closes were in the tenure and occupation of one Richarde Whasshe.⁶

Two banks, the one leading from *Totehyll* to the *Thamyse*, lying between the ditch of *Market Mede* upon the south, and the ditch of the *Burgoyne* and the *Vyne* garden upon the north; the other lying between the same *Market Mede* upon the west, and the *Thamyse* upon the east, in Westminster aforesaid, which now be in the occupation of John Shether.

Three parcels of meadow called *Market Mede* lying between the *Thamyse* and *Totehyll*, and one more⁷ abutting upon *Sheerdyche*, now in the occupation of John Bate.

One close called *Sandypytte feld* containing 18 acres whether it be more or less, in Westminster, with two meadows to the same adjoining, whereof one of the said meadows contains 5 acres and the other 7 acres, now in the occupation of one William Bate.

¹ This, of course, is quite indefinite.

² Thames Mead, by the river in Eybury.

³ The "Aye or Tybourn Brook".

⁴ Chelseth = Chelsea.

⁵ Totyngton = Todington = Tuddington = Teddington. See Newcourt's *Repertorium*.

⁶ On the plan of 1723 "The Manor of Eybury" is written against the farm, 4, which evidently was only a part of the original manor, as parcels formerly found to be in Eybury are in the list now quoted classed separately. The two closes, "late parcel of Longmore," are marked 5 and 6 on the plan; 5 had been divided.

⁷ Moor.

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One meadow called Longmore containing 8 acres, and one bank extending from *Abbots Bridge* unto the *Thamyse*, which now be in the occupation of one John Lawrence.

A pasture called the *Pryour's Croft* lying next the way leading from *Eye Bridge* to *Eyebury*.²

One piece of meadow lying in *Thamyse Mede* called *Priour's Hoope* containing $1\frac{1}{2}$ acre.

One close called *Bryk Close* lying between the great close belonging unto Eybury on the west and north, and the meadow called *Conduyte Mead* on the east, which Robert Sharpe and Elizabeth his wife, late the wife of one William Vincent, now hold.³

One croft called *Hawarde's Croft*, which now one Edward Stokwood holdeth.

One meadow parcel of *Longmore* containing by estimation 4 acres lying next the *Abbot's Bridge* at *Totehyll* aforesaid, which now is in the occupation of one Nicholas Fysshier lying and being in Westminster.⁴

The remainder of the items are beyond our limits, and may be summarized: Two cottages at *Charing Cross*. A yearly rent going out of a tenement called *the Swan* at *Charing Cross*. A rent going out of the lands of the Abbot of Abingdon in *Charing Cross Field*. Rents from a close at *Colmanshedge*, and from various lands in Westminster, respectively belonging to Sir William Essex, Edward Norres, Sir Hugh Vaughan, and William Jenyn, and one going out of the Manor of *Chelsea*, late in the tenure of William, Lord Sandes. Finally, three closes in *East Greenwich* in the County of Kent, part of the parcel of the farm of *Combe*, late in the tenure of one William Muschampe.

¹ On the plan the meadow is numbered 7, and the bank 8. The bank (not the Aye or Tyburn Brook, 10, along which it ran) seems to have marked the boundary between the parishes of St. Margaret and St. Martin-in-the-Fields. Abbot's Bridge evidently carried the causeway, called the Willow Walk, over the Aye Brook.

² Along the Chelsea Road. The Eye Bridge carried the road over the "Aye Brook or Tybourn", near the site of Buckingham Palace, probably where in Saxon times was Cowford. Eybury here evidently means Eybury Farm.

³ The Conduit Mead is known to have lain where is now Bond Street, and "the great close of Eybury" is supposed to have been the site of Grosvenor Square.

⁴ This parcel (9 on plan) is marked "Longmoore" on the plan of 1614. The moor-farm lay along the "Aye Brook or Tybourn", and at one time included two parcels in Eybury, 5 and 6 as noted. The farmstead seems to have been about where is now the Roman Catholic Cathedral in Westminster.

IV.—*On the Fellows of the Society of Antiquaries of London who have held the office of Director.* By SIR EDWARD WILLIAM BRABROOK, C.B., Vice-President and Director.

Read 27th January, 1910.

INTRODUCTION

LORD CARNARVON, in his Presidential Address of 1880,¹ gave a list of Fellows who had held the office of Director. The list comprises the names of many men who distinguished themselves in the service of the Society; and I now submit to the Society such information as I have been able to get with respect to each of them.

In the Elizabethan Society of Antiquaries, which was commemorated by Richard Gough in his preface to the first volume of *Archæologia*, published in 1770, Sir Henry Bowchier and Francis Tate (whose antiquarian learning won him high praise from Selden) had the title of "Moderators", and Lord Carnarvon suggested that that was the equivalent of the office of Director. We are informed by Spelman² that that Society discontinued its meetings for some years; that its remaining members met together in 1614 to resuscitate it; and that they then appointed "Mr. Hackwell, the Queen's Solicitor, to be their Register and the Convocator of their Assemblies for the present". The person referred to was undoubtedly William Hakewill, of Lincoln's Inn, the famous legal antiquary. In the function of Convocator his office was a sinecure, for the king interposed (under a misunderstanding, as Spelman thought), and no other assembly was ever convoked. The revival of 1614, therefore, died out after that first meeting. Lord Carnarvon thought that the office of "Register" was also similar to that of the Director.

I

Antiquaries again began to meet together in 1707, and among them was Mr. JOHN TALMAN, born in 1686, the son of an eminent architect at West Lavington, in Wiltshire. He was an excellent draughtsman and travelled much in Italy. He was at Florence on the 2nd March, 1709-10, when he wrote a letter to the Dean of Christ Church on the collection of 2,111 drawings made by the celebrated Father Resta (1635-1714) and acquired by the late Monsignor Marchetti, Bishop of Arezzo. It was bound in sixteen folio volumes, and the bishop's nephew and heir desired to sell them, and demanded 3,000 crowns, or £750 sterling. In Mr. Talman's opinion they were worth any money. He was

¹ *Proceedings*, 2nd S. viii. 337.

² Preface to *Treatise on Law Terms*.

making a catalogue to send to the Lord President (I suppose of the Queen's Council). Notwithstanding Mr. Talman's high estimate of their value, the collection was, later in the year 1710,¹ sold to Lord Somers for £600 only. It appears that Mr. Richardson, a painter, collated, purchased, and exchanged many, which were sold and dispersed in his sale, as we learn from a note appended to Mr. Talman's letter when it was published by Mr. Bathoe with other tracts, including a catalogue of the Duke of Buckingham's collection in 1758.² In a few years the whole collection had been dispersed. Possibly some of its contents might still be traced by the bishop's mark of a cross-crosslet.

When the Antiquaries organized themselves into a formal Society in 1717, they appointed Mr. Talman their Director. From their minutes it appears that on 14th Jan. 1718-19, Mr. Director brought a proof of an etched plate of a Roman lamp to be used as a signal or ticket of the Society, which he was pleased to make a present to the Society.

On 25th March he brought a sketch of a design for a plate to be printed as a headpiece or emblem of the works of the Society at the beginning of any publications, and he was ordered to have it etched. We thus owe to him our familiar emblems. It is also stated by Vertue that Talman was the first to propose that the Society should engrave plates of antiquities.

The rule of the Society then in force relating to the functions of the Director was as follows:—"VI. The Director shall superintend, regulate, and have the custody of all the drawings, engravings, and books, manage the printing and sale of them, paying the sums thereon arising to the Treasurer, and deliver to each member his dividend calculated at the common price for which such books and prints may be sold to stationers, and by ballot to receive all votes, carrying the same to the President." Under this rule, on 4th February, 1718-19, he was ordered to deliver out prints of Richard II. The office appears to have been occasionally described as that of Director of the Works of the Society. On 8th July, 1721, Talman wrote to Samuel Gale, "I rejoice to hear our Society is going on so strenuously. I wish we had a proper place to meet in and to set up our books." He presented many of his drawings of Italian antiquities to the Society, and died in 1726, at the early age of forty.

On 20th October, 1743, seventeen years after his death, his letter about the Marchetti collection was laid before the Society by James West, Esq., and ordered to be transcribed on the register. In 1758, as we have seen, it was published by Bathoe; and in 1770 it was reprinted in the first volume of *Archaeologia*. It was

¹ See Mr. Lewis Fagan's useful volume of *Collectors' Marks*, 1883, to which the learned librarian of the Victoria and Albert Museum has kindly referred me.

² See Duplessis, *Les Ventes de Tableaux, Dessins, &c.*, to which I have been kindly referred by Mr. W. Roberts, in *Notes and Queries*, 10th S. xii, 113.

thus the fate of this interesting communication of our first Director to be neglected when it might have been of some use, and to be twice published long after his death and long after the dispersal of the collection to which it referred.

II

It seems that on Mr. Talman's death, the Treasurer, Mr. SAMUEL GALE, temporarily undertook the office of Director as well. He was born in 1681, a son of the Dean of York, and brother to Roger Gale, Treasurer of the Royal Society, and Vice-President of the Society of Antiquaries. He was author of a *History of Winchester Cathedral*, a copy of which is in the Society's library, and of papers on the Horn of Ulphus at York, and on Caesar's passage over the Thames, in the first volume of *Archaeologia*. He gave up the office of Director, retaining that of Treasurer, on 8th February, 1726-7, and Mr. Degge was chosen Director and Assistant Treasurer. At that meeting the contributions of members were fixed at two shillings per month. A year later, 28th February, 1727-8, a question arose as to finding a new place of meeting for the Society, when upon a division there appeared sixteen for a private room, and two for a tavern; and accordingly on 19th October, 1728, the Society met for the first time in its new apartment in the King's Bench Walks. At that time it was limited, by a resolution passed on 18th January, 1726-7, to 100 members. It may be interesting to note here what was the financial position of the Society about this time. At the anniversary meeting of 1735-6, Mr. Gale, as Treasurer, presented his accounts for 1734, showing a balance brought forward from 1733 of £87 4s. 6½d., monthly payments in 1734 £20 17s., admissions that year £8 8s., deficiencies (*i. e.* arrears) received since 1733 £8 6s. 6d. Total £124 16s. 0¼d. Several payments in 1734 £40 1s. 7d., leaving a balance of £84 14s. 5½d. Mr. Treasurer was ordered thanks for his great care and trouble, a compliment which has been paid ever since, and now takes the form of thanks for his good and faithful services. Mr. Gale continued to hold the office of Treasurer until 28th February, 1739-40, when he retired, and the unanimous thanks of the Society were awarded to him for the great pains he had taken during the many years he had held the office and for his just administration of it. He was also requested to order a piece of plate of what shape or form he pleased, to the value of ten guineas, to be paid for by the Society, and to bear the following inscription:

SAMUELI GALE ARMIG.

ob Quaesturam

amplius xxi annor.

bene et fideliter gestam

Societas Antiquar.

Londinensis.

L. D. D.

He had been one of the original members of the Society, and he survived to be one of the Council named in its charter in 1752. He died in 1754. In the office of Treasurer he was succeeded by Mr. Charles Compton.

III

SIMON DEGG or DEGGE, M.D., F.R.S., was the grandson of Sir Simon Degge, of Derby, Judge of South Wales, and author of *The Parson's Law*, who¹ was knighted at Whitehall, 2nd March, 1669, and had a grant of arms from Sir Wm. Dugdale: *Or on a bend azure three falcons rising argent armed and belled or*, dated 9th May, 1662. Crest, *a like falcon argent, beakt leged and belled or, issuant out of a ducal coronet*. Mr. Degge appears to have been born in 1694²; he was elected a member on 7th March, 1722-3, and on the same day brought some fine coins and a transcript of Domesday for Derbyshire, written by his grandfather.

At the next following meeting he brought a catalogue of several scarce books of English history in his possession, and on that and on many succeeding occasions exhibited coins and medals, of which he must have had a large collection. On 20th March, 1722-3, he brought an ancient pedigree of the kings of England from Adam to Henry VI, upon vellum, with historical remarks in Latin. On 2nd May, 1723, he was elected a Fellow of the Royal Society; Mr. Harrison, the Assistant Secretary of that Society, has kindly searched the records, and informs me that his proposers were Dr. Stuckely, Mr. Heathcott, and Mr. Sanders. He communicated to the *Philosophical Transactions*³ a paper on a human skeleton, of large size, found at Repton.

He appears to have been active in works of exploration, for on 8th May, 1723, he brought to the meeting of the Society of Antiquaries two pateras, two patellas of red earth, one ampulla, and other things that had been found in the parish of Hinxworth during the preceding month. After 1725 he is referred to as Dr. Degge. As already stated, he was elected Director on 8th February, 1726-7. On the 11th November of that year Thursday night was fixed as the time of meeting, as it still remains. He died in 1729, when only thirty-five years of age.

IV

No trace of the election of a successor to Dr. Degge, or of the presence of any Director at our meetings, appears on the minutes until Thursday, 15th January, 1735-6, "the day appointed by the statutes for the election of officers for the year ensuing," when CHARLES FREDERICK, Esq., was chosen Director. He was the second son of Sir Thomas Frederick, Governor of Fort St. David, and was born 21st December, 1700. He was admitted a member of the Middle

¹ See Le Neve's *Knights*.

² *Fam. Min. Gen.* 983.

³ xxxv. 363.

Temple in 1728, elected F.S.A. on 16th March, 1731, and F.R.S. in 1733. On 22nd February, 1732-3, he brought a fine Roman vessel of red earth, found near Canterbury, a sketch of which is entered on the minutes. He also exhibited medals and other objects. On 2nd May, 1734, the Society agreed that its hour of meeting every Thursday should be 7 o'clock. On 1st May, 1735, it appointed Mr. Alexander Gordon its Secretary, at a remuneration of five shillings every night he shall attend.

Mr. Frederick entered upon his duties as Director with zeal. On the 5th February, 1735-6, he undertook to complete the tables of English coins drawn up by Browne-Willis. Like Mr. Talman he was a good draughtsman, and he enriched the Society's old drawing-book with various sketches. On 11th March, 1735-6, he read his paper on the Ermine Street, which appears in the first volume of *Archaeologia*. On many other occasions he made exhibitions and communications.

On 20th May, 1736, honorary foreign members were first appointed by the Society. At the next anniversary, on 20th January, 1736-7, Mr. Frederick was re-elected Director. The following Thursday a select committee was appointed to consider of the office of Director. The members were Mr. Frederick, Mr. West, Mr. Vice-President Gale, Mr. Treasurer Gale, Mr. Leithicullier, Mr. Theobalds, Mr. Nicholas, Mr. Birch, "or any other member who will attend on that occasion." On the following Thursday it was agreed that three should be a quorum of that committee. It made its report on 24th February, which was to the effect that the duties of Director included the approval of all drawings and inscriptions before they were engraved and the taking into his custody of all copperplates, and that he should have power to appoint a Sub-director. The report was approved. Mr. Frederick was again elected Director in 1737-8, and on 7th April, 1738, Mr. West, painter, had leave to be present at the meeting, when he presented the Society with two sets of his prints of the ancient churches of London, and Mr. Director was desired to place one copy of them in Stow's *Survey of London* in their proper places. On 28th April Mr. Director Frederick acquainted the Society that, being determined to travel into foreign countries, he desired to resign his office of Director, whereby the Society might proceed to the electing another Director in his room. Agreed that Mr. Director Frederick be pleased to continue in the same office even while abroad, but that he would substitute some fit person in his place as Sub-director. The Rev. Mr. Birch was accordingly named to that office by Mr. Frederick, which meeting with the concurrence and approbation of the Society, the Rev. Mr. Birch was declared Sub-director accordingly. Mr. Frederick was again elected Director on 15th January, 1740-1, and on the following Thursday he proposed that no person should be elected a member without a formal nomination stating his qualifications, and signed by

three members. On 20th August, 1741, a proof of the print of the cross at Winchester was referred to him for his opinion. On 26th November he was appointed a member of a committee to inspect the Society's books, prints, and other things, and make a good catalogue. On 21st January, 1741-2, the Secretary read a letter from him, desiring to decline re-election to the office of Director on account of his own affairs engaging much of his time, and thanks were voted to him for the great regard he had shown for the Society for many years. He was M.P. for Shoreham from 1741 to 1754, and for Queenborough from 1754 to 1784. He was Surveyor-General of Ordnance, and was created a Knight of the Bath in 1761. He was not a Baronet, as incorrectly stated in *Archaeologia*,¹ though he was a kinsman of the then Baronet and his own descendants ultimately succeeded to the Baronetcy. On 25th January, 1770, he communicated a paper on Jarrow Church. He died 18th December, 1785.

V

The Rev. THOMAS BIRCH, D.D., was born of Quaker parents on 23rd November, 1705 (plate IX). He became F.R.S. and F.S.A. in 1735. He performed his duties as Sub-director with great efficiency. On 19th May, 1737, he presented the Society with a copy of two volumes, 8vo, edited by himself, being the miscellaneous works of Mr. John Greves (Greaves), Professor of Astronomy at Oxford. On 23rd June it was agreed that the Sub-director do select, from the book wherein are drawings of some English coins belonging to the Society, such as may seem most proper to be engraved. So completely did he fill the functions of Director that on two occasions he took the chair at meetings. On 8th December it was agreed that there be an annual feast held by this Society, on every St. George's Day, except that day fall on a Sunday or Good Friday, on which anniversary the members may, if they please, dine with one another, at their own charge. A select committee was appointed, consisting of Mr. Vice-President Folkes, Mr. Vice-President Gale, Mr. Treasurer Gale, Mr. West, Mr. Sub-director Birch, Mr. Nicholas, and Mr. Holmes, to consider of rules proper for regulating the said annual meeting. On 12th January, 1737-8, it was ordered that the feast be kept at the Mitre Tavern in Fleet Street, and that the ordinary be four shillings per head, with one shilling for a pint of port wine. It was now reported that the Society's number of members was completely one hundred. Discussions arose, and were continued during many meetings, in which Mr. William Bogdani took an active part, as to the questions, 1. of printing a list of the members, 2. of repealing the limit of numbers. On 19th January the Rev. Mr. Birch was chosen Director during the absence of Mr. Charles Frederick,

¹ Vol. i. 61.



THOMAS BIRCH, F.R.S.



GREGORY SHARPE, F.R.S.

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and is thereafter referred to as Mr. Director Birch. On 16th March he presented a print, by Hollar, of the frontispiece of a book given to the Royal Society by John Evelyn. On 4th May he addressed to the Society some observations on a medal of Cardinal Richelieu; on 18th May he was desired to prepare an inscription for the print of the Bishop's Chapel at Hereford; on 8th June he brought two volumes of the Catalogue of the Bodleian Library, which he had bought for the Society; on 15th June he was desired to prepare a list, in Latin, of the works of the Society. This he did, and presented it on 14th December. On 3rd August he was desired to add the dimensions of the tesserae to the plate of pavements found near Bath, and on 24th August he directed Mr. Vertue accordingly. On 2nd November he and Mr. Treasurer Gale promised to draw up an account of Arabella, Countess of Lennox, which they did on 11th January, 1738-9.

VI

At the annual meeting on the following Thursday, which was the close of this busy and useful year of Mr. Birch's Directorate, something like a crisis occurred. Mr. Theobald proposed, and Mr. Johnson seconded, that Mr. WILLIAM BOGDANI be Director, and on a ballot being taken, the votes were 12 in the affirmative, 11 in the negative.

Mr. Bogdani, born in 1699, had been elected F.S.A. 23rd November, 1726, and F.R.S. in 1729. In April, 1729, he had presented the Society with a large collection of casts of seals. In 1732 he had exhibited and commented upon two sketches of rock inscriptions from the river Taunton in New England, which gave rise to a curious controversy. On 1st February, 1738-9, the Rev. Mr. Birch, late Director, returned to the Society the book of their works from which he had translated his Latin catalogue. This catalogue did not appear to have quite satisfied Mr. Director Bogdani, who on more than one occasion brought it before the Society for further consideration. He is noted as having made several communications to the Society during his Directorate. At the annual meeting for the election of officers on 17 January, 1739-40, he wrote to say that his affairs obliged him to be out of town for a fortnight, and sent his keys, to be delivered to any person who might be appointed Director in his place, and the Society chose by ballot the Rev. Mr. Thomas Birch, former Director, to be Director for the ensuing year.

Mr. Bogdani married a near relative of Maurice Johnson, and was for many years the usual medium through which the proceedings of the Gentlemen's Society of Spalding were reported to the Society of Antiquaries. He stood for Director on the retirement of Mr. Frederick, but was not elected. He was Clerk

of the Ordnance Office in the Tower, and held a lease from the Crown of the manor of Hitchin, where he died in 1771.

Mr. Birch returned to his functions with his former zeal. On 24th April, 1740, he was authorized to purchase a drawing of St. Mary's Abbey and the manor, and on 8th May was desired to draw up a short account, in Latin, of the hypocaust in Lincoln. This he did on 19th June. He retired from the office in favour of Mr. Frederick in 1740-1, but returned to it in 1741-2, and was annually re-elected until 1746. It is curious that no communication of this able Director and voluminous author should have been selected for publication in *Archaeologia*. On 15th January, 1746-7, notice was given that the Rev. Mr. Birch, late Director, was of late much afflicted in his eyes, and that he desired that the Society would think of some proper person to fill that office. By 1752 he had so far recovered as to accept the office of Secretary of the Royal Society, which he held until 1765. He lived to write the biography of his successor in the office of Director, Dr. John Ward. He died 9th January, 1766, and is buried in the chancel of St. Margaret Pattens. By permission of the Royal Society, his portrait is here reproduced from their collection.

VII

JOHN WARD, LL.D., Professor of Rhetoric in Gresham College, was son of a dissenting minister, and born about 1679. He became a Fellow of the Royal Society in 1723 and afterwards Vice-President. He was elected F.S.A. in 1736-7. On 4th April, 1745, Mr. Vice-President Folkes was pleased to oblige the Society with reading to them a paper which he had brought with him from the Royal Society, written by Professor Ward, on some remains of antiquity in Barkway, Hertfordshire, and to intimate that Mr. Ward's paper would be printed in the *Philosophical Transactions*. On the 25th April Mr. Ward was pleased to present the Society with his own work on the lives of the Professors of Gresham College. The Society returned Mr. Ward their thanks for this book, so acceptable to them. After his election as Director, he read an account of the Court of Wards and Liveries, and made many other communications to the Society. At the anniversary on 21 January, 1747-8, he was re-elected with thanks for his former favours. On 19th January, 1748-9, he was re-chosen, being absent, and thanks were ordered to be returned to him on the first opportunity. On 23rd February the increase in the number of members to 120 was carried by the necessary majority of two-thirds (19 for, 6 against). On 13th April the Director presented his observations on the antiquity and use of beacons. On 18th January, 1749-50, the Treasurer and Director had thanks for their good kind (*sic*) behaviour in their offices and were re-chosen unanimously. On 10th May a committee

was appointed to consider the plan for procuring of a charter, and on the 14th November, 1750-1, the letters patent for incorporating the Society were read. On 23rd April, the anniversary day fixed by the charter, Dr. John Ward was elected Director, and then the Society adjourned in order to dine together.

The early publications of the Society consisted largely of prints engraved by their able artist, George Vertue, and described by the successive Directors, and it now became a practice to reward a Director for his trouble in preparing the inscription and supervising the engraving by giving him six copies of each print. On 8th March, 1753, the Society took a house in Chancery Lane, where it held a meeting for the first time on 12th April. At the anniversary on the 23rd Dr. John Ward was re-elected Director, and on 26th April Martin Folkes, the President, appointed him one of the Vice-Presidents. He continued to hold both offices by annual reappointment, having been appointed Vice-President on 25th July, 1754, by Lord Willoughby de Parham, who had become President on the death of Mr. Folkes. A curious incident occurred shortly after. The Society had been advised, when it obtained its charter, that its existing members should all be re-elected and enrolled as members of the corporate body. This was done, but by some oversight the name of Dr. Stukeley had been omitted, and it was now discovered that Dr. Stukeley, the Society's first Secretary, had never been properly constituted a member of the corporation. The Society at once proceeded to remedy the omission, and on 14th November, 1754, our Director-Vice-President being Chairman, Dr. Stukeley was readmitted. He showed his gratitude to the Society at its next meeting by presenting fifty-two prints, and informing the Society that Bertram's *Richard of Cirencester* was in the press. The doctor, on 6th November, 1755, brought to the Society a map that Bertram had prepared to illustrate that fictitious work, and on the 18th March and 8th April, 1756, read an account of Richard, his family, and his works, and thus launched upon us Bertram's amazing forgery. On other occasions, Dr. Stukeley renewed his active interest in the Society. On 12th December, 1754, he presented drawings of the Leicester pavement and of other objects, and was thanked for that valuable present. On 20th February, 1755, he occupied the chair as the senior member present, and delivered in his drawings of the Old Sanctuary. He died 4th March, 1765, aged 78.

To return to Dr. Ward. On 8th June, 1758, he presented, through Dr. Parsons, his *Four Essays upon the English Language*. In October of the same year he died, and is buried in Bunhill Fields.

VIII

The Ven. JOHN TAYLOR, LL.D., Archdeacon of Buckingham and Canon of St. Paul's, the son of a barber, was born 22nd June, 1704. He was elected F.R.S.

and F.S.A. in 1759, and on St. George's Day in the same year was elected Director, in succession to Dr. Ward. He was at the same time appointed one of Lord Willoughby's Vice-Presidents, and held both offices together until his death on 4th April, 1766, having been reappointed Vice-President by the Bishop of Carlisle on his lordship's accession to the Presidency after the death of Lord Willoughby in January, 1765. During Dr. Taylor's time the work of the Society does not appear to have been strenuous, though there are some interesting incidents. On 5th February, 1761, William Blackstone, the author of the famous *Commentaries on the Law of England*, was elected a member, and on 9th April was admitted. On 11th February, 1762, there was a meeting in very indifferent weather, when the Hon. Horace Walpole, Dr. Stukeley, Mr. Pegge, and nine other Fellows not so well known to fame, were present, but the President and Vice-Presidents were absent, and no gentleman choosing to take the chair the evening was spent in conversation. On 12th March, in the like circumstances as to weather, Dr. Taylor took the chair, but, as only six were present, they declined entering upon business, and spent the evening in conversation. Not unfrequently the record of an evening meeting is a blank. Horace Walpole's name having been mentioned as attending a meeting, it is perhaps as well to say that he got tired of the Society after a time. In 1770 he writes that he had dropped his attendance at the Society's house in Chancery Lane four or five years before, being sick of their ignorance and stupidity. He entered into a controversy with Dean Milles, the then President, as to the Wardrobe Accounts of Richard III.¹ He got increasingly bitter as time went on, referred to *Archæologia* as "Old Woman's Logic",² and in 1777 said that he had shut himself entirely out of the Antiquarian Society and Parliament, "the archiepiscopal seats of folly and knavery."³ After all this it is rather odd to find him in 1778 hinting a suspicion that there was a cabal in the Society against him, and that Lord Hardwicke was the mover of it.⁴

Dr. Taylor's description of the inscriptions at Netherby, like many other contributions to the Society made at that time, is printed in the *Philosophical Transactions*. He was a great classical scholar. He held the offices of University Librarian and Registry, was Fellow and Tutor of St. John's, Cambridge, and Chancellor of the diocese of Lincoln. He is buried in St. Paul's Cathedral.

IX

The Rev. Prebendary GREGORY SHARPE, LL.D., Master of the Temple, was born in 1713, and elected F.S.A. and F.R.S. in 1754 (plate IX). He became Director at the anniversary of 1766 in succession to Dr. Taylor, and was immediately ap-

¹ *Letters*, vii. 427.

² viii. 41.

³ x. 26.

⁴ x. 312.

pointed a Vice-President by the Bishop of Carlisle. On the death of that prelate on 7th January, 1769, Dr. Milles, Dean of Exeter, succeeded him as President, and selected Dr. Sharpe as one of his Vice-Presidents. Dr. Sharpe continued to hold the offices of Director and Vice-President until his death on 8th January, 1771. He frequently occupied the chair at meetings. His last communication to the Society was on the 15th November, 1770. In his time some incidents occurred worth noting. On 20th April, 1769, the President directed the Secretary to cease to enter on the minutes the name of every Fellow present. On 14th June, 1770, the Society provided itself with a common seal, and ordered a copperplate engraving from it to be used in *Archaeologia*. On 5th July the President presented the king at a levée with the first volume of *Archaeologia*. Dr. Sharpe was a classical and oriental scholar, and frequently addressed the Society on those subjects, but no contribution of his appears in *Archaeologia*. By permission of the Royal Society a fine portrait of him is here reproduced from their collection.

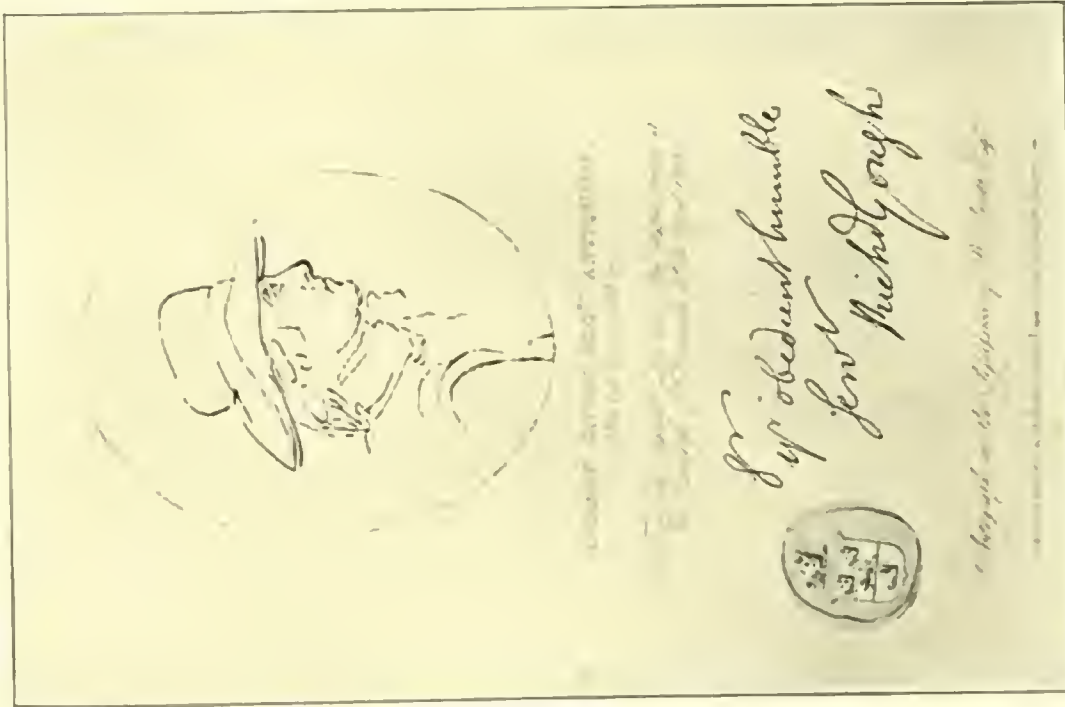
X

RICHARD GOUGH, born of wealthy parents in Winchester Street, Austin Friars, on 21 October, 1735, was elected F.S.A. in 1767 (plate X). On 9th February, 1769, he presented the Society with his *Anecdotes of British Topography*. As already stated, in 1770 he wrote the preface to *Archaeologia*. On 15th February, 1770, he read a paper on the Tomb of Roger, Bishop of Salisbury, 1139, which appears in the third volume of *Archaeologia*. On 31st January, 1771, he sent a paper on a sarcophagus at Llanrwst. On 23rd April of the same year he was elected Director. The room at the Mitre Tavern was too small for the attendance of the Fellows on that occasion, so they dined in Clifford's Inn hall. In following years they returned to the Mitre, where an "elegant entertainment, suitable to the occasion, was provided". Mr. Gough was an energetic Director. Besides the sixteen papers which appear in *Archaeologia*, vols. ii to xi, he made numerous presentations and communications to the Society which are recorded in its minutes. In 1777 Mr. Gough published a *Catalogue of the Coins of Canute*, and in 1786 his great work on *Sepulchral Monuments*; and he was author of *British Topography* (2 vols. 4to) and other antiquarian works. In 1789 he presented his new edition of Camden's *Britannia* in three large volumes, folio. He became F.R.S. in 1775, and quitted that Society in 1795. During his tenure of the office of Director, which lasted until 1797, twenty-six years, the longest upon record, some interesting circumstances arose. In 1777 the annual subscription was raised from £1 11s. 6d. to £2 2s., and the composition from £15 15s. to £22 1s. By 1780 the Society had £2,400 invested in Consols. On 8th June, 1780, the Gordon riots were raging, and the Society adjourned without entering

upon business. In the same year, the king allotted to the Society a noble apartment in Somerset House, where it for the first time held a meeting on 11th January, 1781, and erected a bust of his majesty in token of gratitude. On 13th November, 1784, Dean Milles, the President, died, and on the 26th Mr. Edward King was elected in his place. He at once proceeded, with the assent of the Council, to effect certain reforms, and on the 23rd April very gracefully resigned his seat in favour of Lord de Ferrers, and was thanked and made a Vice-President. At that time the Society had 400 members. On 18th May his lordship was created Earl of Leicester. On the following anniversary in 1758 Mr. King opposed the re-election of Lord Leicester, and drew up a house list of his own. Lord Leicester was elected by sixty-two votes against thirty-seven for Mr. King. Then the Fellows had an elegant dinner at the Devil Tavern. In 1787 and in subsequent years they dined at the Crown and Anchor. In 1789 Joseph Ritson was proposed as a Fellow, but was not elected. The same fate befell Samuel Ireland, but his friends immediately proposed him again, only to be again rejected. On 1st March, 1798, the Society paid £500 to the Bank of England as a voluntary contribution for the defence of the country. At the anniversary of 1798 it was reported that Mr. Gough had withdrawn from the Society. On 30th March, 1799, he presented it with the introduction and index to the second volume of his *Sepulchral Monuments*, and on 17th April, 1806, it is recorded that our late worthy Director, Mr. Gough, presented eight drawings of St. Albans Abbey, made by Mr. Carter. He died 20th February, 1809, and is buried in the churchyard of Wormley, Hertfordshire. By permission of the Royal Society an interesting portrait of him is here reproduced from their collection.

XI

SAMUEL LYSONS, of the Inner Temple, Barrister-at-Law, the second son of the Rev. Samuel Lysons, was born 17th May, 1763, elected F.S.A. on 9th November, 1786, and admitted 23rd November. He was elected F.R.S. in 1797 (plate X). He made frequent communications to the Society of Antiquaries, and succeeded Mr. Gough in the office of Director on 23rd April, 1798. On the 3rd May the Vice-President in the chair delivered the key of office to Mr. Lysons, and he took his seat as Director. He was annually re-elected until 1809. He contributed twenty-eight papers to *Archaeologia*, from vols. ix to xix. His history of the Berkeley family occupied fifteen evenings in the reading. He became Treasurer of the Royal Society in 1810, and was also a Vice-President of that Society. He was Antiquary to the Royal Academy from 1818. Among his important contributions to antiquarian literature are the *Reliquiae Britannicae*



RICHARD GOUGH, F.R.S.



SAMUEL LYSONS, F.R.S.

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Romanae, in two vols., folio, 1801; another edition, three vols., folio, 1813-17, containing 156 plates and said to have cost him £6,000 to produce; his description of the Roman Villas at Bignor and at Woodchester (the latter described in our minutes as a most splendid work); his *Antiquities of Gloucester*, 1791-8, and again 1803-4.

On 3rd April, 1809, he wrote to the President that the Society having for several years done him the honour to elect him into the office of their Director, presuming from thence that he should be honoured in the same manner at the ensuing anniversary, he requested that he might not be reappointed on the ground of his duties at the Record Office in the Tower and his other avocations not giving him the requisite leisure; and the unanimous and grateful thanks of the Fellows were voted to him in the most handsome terms for his great care, abilities, and zeal. He was appointed a Vice-President by Lord Aberdeen on 19th November, 1812. In that capacity, as in every other in which he rendered service to the Society, he was assiduous, having been Vice-President in the chair not less than ten times between November, 1818, and June, 1819, the last occasion being the 17th June. He died on the 29th. At the next meeting, on 4th November, Lord Aberdeen, the President, in an elegant and impressive speech, deplored with great sensibility the loss the Society had sustained. Mr. Lysons is buried at Hampstead.

XII

WILLIAM RICHARD HAMILTON, son of the Ven. Archdeacon Hamilton, who was Vicar of St. Martin's-in-the-Fields, and from 1788 to 1813 one of the Society's Vice-Presidents, was born in London 9th January, 1777 (plate XI). In early life he went to the East as private secretary to the Earl of Elgin, British Ambassador at Constantinople. He was employed in that capacity to obtain from the French the Rosetta Stone and other antiquities, in pursuance of the Convention of Alexandria, and performed his duty with great intrepidity and with success. In 1802 he procured a vessel for the purpose of transporting the Elgin Marbles to England, and embarked in it in company with Captain Martin Leake. The ship was wrecked off the island of Cerigo, and they had a narrow escape for their lives. On 14th June, 1804, he was elected F.S.A., the Rosetta Stone having been deposited by the Government in our library, where a facsimile of it was taken and afterwards published in *Vetusta Monumenta*. On 6th December of the same year he read a paper on the Fortresses of Ancient Greece.¹ On the 11th and 18th Feb., 1808, he communicated an account of a papyrus roll which he had presented to the Society.² In 1809 he was appointed one of the Auditors, and on St. George's Day was elected Director in succession to Mr. Lysons. On 16th October of the same year he was appointed Under Secretary

¹ *Archaeologia*, xv. 315.

² *Archaeologia*, xvi. 171.

of State for Foreign Affairs, an office which he held till 22nd January, 1822, and this probably accounts for his not seeking re-election as Director. From 1822 to 1825 he was Minister at the Court of Naples. On 30th November, 1826, he was again elected Director of the Society on the death of Mr. Combe, but he held office only until the following St. George's Day, when Lord Aberdeen appointed him a Vice-President, an office which he continued to hold until 1847, having been reappointed by Lord Mahon. He took part in the formation of the Royal Geographical Society, and was elected a member of the Royal Society in 1813. He was also a member of the Royal Society of Literature, to which he contributed several papers between 1834 and 1839. In 1838 he was appointed one of the Trustees of the British Museum, and he held that office until 1858. He published *Aegyptiaca* and other works. He was Secretary of the Society of Dilettanti, and an Honorary Fellow of the Academy of Sciences at Berlin. He died 11th July, 1859, at Bolton Row.

XIII

MATTHEW RAPER was elected F.S.A. on 17th November, 1785, and admitted the following Thursday. He had been elected F.R.S. in 1783. On 4th June, 1804, he presented this Society with his *Enchiridium* to Scapula's *Lexicon*, a duodecimo which cannot now be traced in the library. On 23rd April, 1810, he was elected Director. On 4th July, 1811, he wrote a letter of resignation in the like terms with that of Lysons, and was thanked in a similar resolution, a rather curious indication of the tendency of the Society to follow precedent. What is still more curious is that the resignation announced and accepted in such pathetic language never took effect. In the following August the President, who had become Marquis Townshend, died, and Sir H. C. Englefield was elected in his place. There were then 830 members. Next St. George's Day, 1812, the Society met at 12. As the meeting was far from being concluded at 5, the boxes and the door of the meeting-room were sealed, and the members adjourned to the Freemasons' Tavern to dinner. The scrutators and others returned to Somerset House at 7, and unsealed the door and box no. 1. At 11 o'clock they gave up through fatigue and left boxes nos. 2 and 3 sealed until next day. 435 Fellows voted, and they unanimously re-elected the Treasurer and Secretaries. For the office of President the votes were: George, Earl of Aberdeen, 251; Sir H. C. Englefield, 184. For that of Director: Matthew Raper, 250; George Isted, F.R.S., 185. The death of Mr. Isted was reported at the anniversary of 1822. Mr. Raper as Director wrote the prefatory notes to the account of the Rosetta Stone in the sixteenth volume of *Archæologia*. He held office until the anniversary of 1813, when Lord Aberdeen made him Vice-President. In that capacity he nearly rivalled Mr. Lysons in the regularity of his attendance. On 5th May, 1814,



WILLIAM RICHARD HAMILTON, F.R.S.



JOHN GAGE ROKEWODE, F.R.S.

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Matthew Raper, as "the Author", presented his *Index ad Specimen Geographicum, Auctor d'Anville, Regiæ Humaniorum Litterarum Academiae et Scientiarum Petropolitanae Socius, MDCCLXII*, which bears as an advertisement the words: "The following Index was arranged by the Editor to facilitate the reference to d'Anville's Map of Ancient Greece, and being found very useful for that purpose, he determined to have a few printed, in order to present copies to such of his friends as he thought might be accommodated by it." His death was reported to the Society on the 14th December, 1825.

XIV

TAYLOR COMBE, son of Charles Combe, M.D., F.R.S., F.S.A., an eminent numismatist, was born in 1774, and elected F.S.A. on 14th December, 1799. He had previously communicated to the Society an explanation of a Greek funeral monument. On the 23rd January, 1800, he communicated observations on a bronze figure of a goat from Asia Minor. In December, 1802, he read a paper on the Rosetta Stone. He was elected F.R.S. in 1806, appointed Keeper of the Antiquities (including coins and medals) at the British Museum in 1807, was Secretary of the Royal Society and Editor of the *Philosophical Transactions* from 1812 to 1824, and Director of the Society of Antiquaries from 1813 until his death on 7th July, 1826. He made many communications to the Society, mostly in relation to coins, and was author of several numismatic works, as well as of descriptions of the ancient marbles and terra-cottas in the British Museum. He died 7th July, 1826, at his residence there, and was buried at Bloomsbury. We possess a portrait medal of him, presented by Dr. Gray in 1869.

XV

JAMES HEYWOOD MARKLAND, D.C.L., Solicitor, son of a manufacturer and landed proprietor, was born 7th December, 1788. He was elected F.S.A. on 26th January, 1809, but not admitted until 19th November, 1810. On 23rd January, 1812, he exhibited drawings of Henry VII's tomb. He was elected F.R.S. in 1816 and Director of the Society of Antiquaries on St. George's Day, 1827. On 27th November, 1828, Mr. Henry Hallam announced from the chair as Vice-President that the king had granted two gold medals, value 50 guineas each, to be annually awarded by the Council. It does not appear that these medals were ever awarded.¹ Mr. Ouvry, President of the Society, writing to me on 24th March, 1877, informed

¹ See *Observations on the State of Historical Literature*, by N. H. Nicolas, 1830, p. 39. Mr. (afterwards Sir) N. H. Nicolas had been elected on the Council in succession to Mr. Raper, deceased, on 25th June, 1827. He appears not to have been re-elected the following year, and to have withdrawn from the Society in 1829. His book is a bitter attack upon its management. The Society has always been open to this sort of cheap criticism, and does not appear to have suffered much from it.

me that after a few years the royal grant was found to lead to so much jealousy and heart-burning that the Society requested the discontinuance of the gift! Mr. Markland resigned the office of Director in 1829, and was elected on the Council. Thanks were voted to him for the great zeal, ability, and attention to the welfare of the Society uniformly displayed by him as Director. His papers in *Archaeologia* are in vols. xviii, xx, xxiii, and xxvii. He edited the *Chester Mysteries* for the Roxburgh Club in 1818, and published *Remarks on Sepulchral Memorials*, 1840-1843, besides papers in the *Archaeological Journal*, the *Journal of the British Archaeological Association*, and *Notes and Queries*. Lord Stanhope's address for 1865 contains an obituary notice of Mr. Markland.

XVI

JOHN GAGE, Barrister, of Lincoln's Inn, son of Sir Thomas Gage, was born 13th September, 1786, elected F.S.A. 5th November, 1818, and admitted on 3rd December (plate XI). He became F.R.S. in 1824. He was elected Director at the anniversary of 1829, and retained that office until his death. On 19th November, 1829, he communicated observations on the round towers of Norfolk and Suffolk churches, and afterwards made numerous communications, many of which are contained in *Archaeologia*, vols. xxi to xxx. Among them should be specially mentioned his accounts of his excavations of the Bartlow Hills, and his description of the Benedictional of St. Aethelwold. In 1838 he inherited the estate of Coldham Hall, Suffolk, and took the additional name of Rokewode, by royal licence. He died on 14th October, 1842, and was buried at Stanningfield. At the meeting of the Society on 24th November, Mr. Henry Hallam, the Vice-President in the chair, said that no eulogy of Mr. Rokewode could be necessary before those who were present, most of whom were all aware of his zeal and diligence in their service, his extensive knowledge of antiquity and taste for art. It was within the circle of his intimate friends that he was still more valued for the sincerity of his manner and the excellence of his heart. The premature loss of such a man was deeply to be regretted. By permission of the Royal Society, a fine portrait of him is here reproduced from their collection.¹

XVII

ALBERT WAY, son of the Rev. Lewis Way was born 23rd June, 1805 (plate XII). He was elected F.S.A. 7th March, 1839, and communicated through Mr. J. Gage

¹ Most of the preceding statements are derived from the unpublished MS. minutes of the Society, and I hope that they will be found of sufficient interest to encourage the Council in their resolution to print those minutes *in extenso*. Other statements are given on the authority of the *Dictionary of National Biography*, or derived from various sources. From this point the anniversary addresses of successive Presidents of the Society, as recorded in the two series of its printed *Proceedings*, supply most of the facts.



ALBERT WAY



ADMIRAL WILLIAM HENRY SMYTH, F.R.S.

PORTRAITS OF FORMER DIRECTORS OF THE SOCIETY OF ANTIQUARIES

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Rokewode, the Director, a paper on the effigy of Richard Cœur de Lion in Rouen Cathedral, which appears in the twenty-ninth volume of *Archaeologia*. He succeeded Mr. Rokewode as Director on 15th December, 1842, and held the office until 19th November, 1846, when he resigned, having ceased to reside in London. He had in the meantime read several papers, which appear in *Archaeologia*, and prepared a catalogue of the antiquities, coins, pictures, and other miscellaneous objects in the Society's possession. He was one of the founders and the Hon. Secretary of the Archaeological Institute. He died 22nd March, 1874, and his widow, the Hon. Mrs. Way, presented many books from his library and others of his collections to the Society. The portrait reproduced in plate XII is from a wax medallion by Lucas.

XVIII

WILLIAM HENRY SMYTH, Admiral, son of an owner of large estates in New Jersey, which he lost as a Royalist, and claiming to be descended from the famous Captain John Smith of Virginia, was born 21st January, 1788, elected F.S.A. in 1821, F.R.S. in 1826, and Director S.A. on 7th January, 1847 (plate XII). Among the duties he had to perform as Director was the sorting and cataloguing of the Kerrick collection of 3,777 coins, which in the year 1907 were returned to a descendant of the donor. On the 7th March, 1851, Lord Mahon appointed Captain Smyth to the office of Vice-President in succession to Henry Hallam, retired. He continued to hold the offices of Director and Vice-President together until St. George's Day, 1852, when he retired from the former. He presided on many occasions at the meetings. At the anniversary dinner of 1851, Lord Mahon, P., in the chair, many distinguished persons connected with literature and science, who had been specially invited, graced it with their presence in honour of the centenary of the Society's charter.

On 16th December, 1852, Admiral Smyth was appointed one of a committee to prepare a revision of the statute of the Society under which the Senior Vice-President of the four was to retire each year, and in pursuance of that new statute his Vice-Presidency expired on St. George's Day, 1857. He was also Vice-President of the Royal Society. Lord Stanhope took occasion to pay a tribute of respect to his accurate knowledge, his constant courtesy, and his upright and able mind. He was the author of many important works in astronomical and geographical literature, and had been President of the Royal Astronomical Society and of the Royal Geographical Society. His contributions to *Archaeologia* extended from the twenty-second to the thirty-ninth volumes. He died 9th September, 1865. By permission of the Royal Society, a portrait of him is here reproduced from their collection.

XIX

Percy Clinton Sydney Smythe, sixth VISCOUNT STRANGFORD, D.C.L., was born on 31st August, 1780. He became F.R.S. and F.S.A. in 1825 and Director of the S.A. in 1852, but held office only until December, 1853. In the interval the heated controversies took place which ended in the reduction of the annual subscription from four guineas to two guineas, a measure which Lord Stanhope afterwards justified by its success. From 1846 to 1852 the number of Fellows had gradually fallen from 641 to 524; after that date they steadily rose to 634 in 1857. On 29th April, 1854, Lord Strangford was appointed a Vice-President. He had filled the post of ambassador from his sovereign to several foreign countries, and been rewarded with an English peerage and the decorations of G.C.B. and G.C.H. Lord Stanhope said of him that while he gave lustre and dignity to the offices which he held among us, these posts had never been filled by any one more conciliatory in his manners, more easy at all times of access, or more sincerely desirous to fulfil the duties committed to his charge. He died 29th May, 1855. The Society possesses a miniature portrait of him, presented by Mr. William Smith, F.S.A., in 1876.¹

XX

Sir HENRY ELLIS, Knight of the Hanoverian Guelphic Order, was born on the 29th November, 1777, became in 1797 an assistant librarian at the Bodleian, and in 1800 transferred his services to the British Museum, where he speedily rose to high office. He was elected F.S.A. in 1807, F.R.S. in 1811, and in 1814 became Secretary of the Society of Antiquaries. He held that office for forty years, and is said only to have missed two meetings in all that time. On 1st December, 1853 (the day of the passing of the new statutes), he became Director, holding that office together with the amount of his present emoluments, and the Society returned their warm and cordial thanks to him for his forty years of most able and zealous co-operation in the business and superintendence of their publications, in the confidence that he would carry the same zeal and ability to the office of Director, and in the hope that health and strength might be vouchsafed to him in that office for many years. One event of his directorate was the discontinuance in 1854 of the St. George's Day dinner, which had in each of the two years previous to the centenary celebration been attended by twenty-one members only, and in the years subsequent to that occasion by twenty-six and twenty-seven respectively. On 17th December, 1857, when he was in his eighty-first year, he found the care of his health increasingly necessary, that coming

¹ See *Proceedings*, vi. 519.

down to the evening meetings through the winter would run the risk of impairing it, and that the toil in the preparation and management of the Society's publications could not longer be undertaken by him, and accordingly resigned the office of Director. The record of the Society's sense of the value of his services was not only sent to him, under the signature of the Chairman, but a fair transcript on vellum was also made and the corporate seal affixed to it by the Council. He continued to make occasional communications to the Society. His contributions to *Archaeologia* range from the sixteenth to the thirty-eighth volumes, both inclusive, and were computed by Lord Stanhope to occupy 589 pages in all. He also published many important works, the earliest of which was the *History of St. Leonard, Shoreditch*, in 1799. Among them may be mentioned his *Original Letters illustrative of English History*, in thirteen volumes, and his catalogue of the Society's manuscripts. He died 15th January, 1869, at the age of ninety-two.

XXI

SIR AUGUSTUS WOLLASTON FRANKS, K.C.B., was born in 1826, and became an officer of the British Museum in 1851. He was elected F.S.A. in 1853, became Director in 1858, and retired from that office after nine years' service, returning to it from 1873 to 1879. In 1873 he became F.R.S. In 1891 he became President of this Society, and retained that office until his death in 1897. He was a Litt.D. of Cambridge and a D.C.L. of Oxford. As the career as Director of this illustrious antiquary merged in the higher dignity of President, and as no Fellow can forget the services he rendered to the Society, of which, as Lord Dillon said, he was ever the generous, faithful, and thoughtful friend, I should not do more than refer to the eulogium pronounced by his lordship in the Presidential Address of 1898¹ if it were not for the fact that from 1872 to 1880 Mr. Franks and I were associated together in the work of the Anthropological Institute. I take the liberty of reprinting some observations I addressed to the Fellows of that Institute on 25th May, 1891.²

Since the last meeting the Institute has lost an early and most valuable supporter, and I myself a personal friend of many years' standing, by the death of Sir Augustus Wollaston Franks, who was an accomplished student of every branch of antiquity. Nothing was more remarkable in his long career as Director and ultimately as President of the Society of Antiquaries of London than the depth and breadth of his archaeological learning. There seemed to be no subject that could be brought before that Society of which he was not master. In connexion with the branches of archaeology which touch most closely upon anthropology, he will be remembered for his researches into late Celtic antiquity and for his happy definition of that period of art. As keeper of the Ethnographical Collections of the British Museum, and acting trustee of the Christy

Proceedings, 2nd S. xvii. 149.

² *Journal of the Anthropological Institute*, xvii. 192, 193.

collection, he commenced the practice, which has been continued under Mr. Read, now his successor,¹ of bringing before the Institute any remarkable ethnographical objects that were about to be acquired by either of those institutions. He was for many years one of our Vice-Presidents, and displayed towards the Institute the same enlightened liberality which distinguished him in other connexions, having contributed largely to the fund raised for clearing off the debt with which the Institute was encumbered at its starting. His munificent gifts to the nation, far exceeding in value all that he had ever received in salary in his public employment, were fitly acknowledged by his being raised to the dignity of K.C.B. When it was suggested that the Council of the Institute should dine together after their meetings, Mr. Franks was one of those who most warmly supported the proposal; for a long time he sacrificed other engagements to that of this meeting, and he introduced to them at those dinners many congenial guests.² These may appear to be trivial incidents to record, but it is in such slight indications of a kindly and generous nature that some of the pleasantest recollections of departed friends are to be found. Of his skill and good fortune as a collector of antiquities, of his great learning in many obscure branches of Oriental art, of his enthusiastic devotion to antiquarian research, of his patient assiduity as an investigator, it is hardly necessary to speak. He inspired those who knew him best with the deepest admiration and attachment, and has left, not only in the public institutions of which he was an officer, but also in this Institute, a memory that will be long cherished.

I may pause here to note a fact of some interest. From the year 1727 to the year 1867, a period of 140 years, every Director of the Society of Antiquaries, with the single exception of Mr. Way, was a Fellow of the Royal Society. The association between the two Societies was close and intimate. For a long time they were housed in the same building, used a common vestibule, and fixed the time of their meetings at a different hour of the same evening, so that the Fellows might attend both. This close association came to an end in 1857, when the Royal Society removed to Burlington House, and was not renewed in 1874, when the Society of Antiquaries followed them there. In the interval, the meeting-room which had been occupied by the Royal Society was transferred to us. Even before 1857, however, Lord Stanhope, as a member of both Societies, had perceived that the old union between science and literature which was embodied in the pleasant relations of the past had been undergoing a process of gradual dissolution, and the tendency to confine the fellowship of the Royal Society to persons engaged in the pursuit of physical science has greatly increased since that date. Only seventeen persons now enjoy the distinction of belonging to both Societies. Fifty years ago there were eighty-one persons Fellows of both. In other words, the proportion of Fellows of our Society who are also Fellows of

¹ Now also his successor in the office of President of the Society of Antiquaries.

² He also took great interest in the revival of the annual dinner of the Society of Antiquaries, and presided at Mercers' Hall and at the Holborn Restaurant.

the Royal Society has been reduced from 14 per cent. to less than 2½ per cent. I have here gratefully to acknowledge the courtesy of that Society in lending me some of their fine collection of engraved portraits.

XXII

CHARLES SPENCER PERCEVAL, LL.D., Barrister-at-Law, grandson of the Right Hon. Spencer Perceval, was born 11th February, 1829, and elected F.S.A. in January, 1860. He was appointed Director on the resignation of Mr. Franks in 1867, and held the office until 1872, when he resigned it on being appointed Secretary of the Commissioners of Lunacy, and Mr. Franks returned to office.

In 1874 Mr. Perceval became Treasurer, and held that office until his sudden death from heart disease on 29th January, 1889. "During his tenure of the post of Director, Mr. Perceval, in addition to his other duties, edited two parts of the sixth volume of *Vetusta Monumenta*, and arranged for publication a List of Sepulchral Monuments." His favourite subject was mediaeval seals, on which "his authority was supreme". He arranged and catalogued the Society's collection of impressions and matrices of seals, and sorted out and arranged for binding the fifty parcels in which the Society's Thorpe MSS. were contained.

XXIII

HENRY SALUSBURY MILMAN, son of General F. M. Milman and nephew to Mr. Octavius Morgan, a valued Fellow of the Society, was born 26th November, 1821, called to the Bar and elected Fellow of All Souls in 1848, elected F.S.A. in 1854, withdrew in 1861, and was re-elected in 1869. He became Director in 1880, and retained the office until his death in 1893. He contributed eight memoirs to *Archaeologia*, and made several other communications recorded in our *Proceedings*.

XXIV

Harold Arthur, seventeenth Viscount DILLON, son of Arthur, sixteenth Viscount, who was himself a Fellow of the Society, was elected F.S.A. in 1873, served as Secretary from 1886 to 1892, as Vice-President from 1892 to 1896, and on the death of Mr. Milman became Director from February to April, 1894.

On the death of Mr. Franks he became President. To this statement of facts I will only add that in 1876 and 1877 Captain Harold Dillon (as he then was) and I were jointly Directors of the Anthropological Institute.

XXV

FREDERICK GEORGE HILTON PRICE was elected F.S.A. on 12th January, 1882, member of Council in 1887, 1888, 1891, and 1892, and Director 1894. He filled

that post for fifteen years, and his unexpected death in March, 1909, as the sequel of a surgical operation, was felt as a personal loss by the Fellows of the Society generally, so greatly had he endeared himself to them by his courtesy and geniality, and by his loyalty to the Society and devotion to his duties. He was a liberal supporter of Egyptian exploration, and took an active part in many explorations in England.

I believe that the following Table gives a complete list of the Directors of the Society, with in each case the date of birth (where known), date of election as a Fellow, date of first election as Director, and date of death:

		BORN.	F.S.A.	DIR.	DIED.
1.	John Talman	1686	1717	1717	1726
2.	Samuel Gale	1681	1717	1726	1754
3.	Simon Degge, F.R.S.	1694	1722	1727	1729
4.	Charles Frederick, F.R.S.	1709	1731	1735	1785
5.	Thomas Birch, F.R.S.	1705	1735	1738	1766
6.	William Bogdani, F.R.S.	1699	1726	1739	1771
7.	John Ward, F.R.S.	1679	1737	1747	1758
8.	John Taylor, F.R.S.	1704	1759	1759	1766
9.	Gregory Sharpe, F.R.S.	1713	1754	1766	1771
10.	Richard Gough, F.R.S.	1735	1767	1771	1809
11.	Samuel Lysons, F.R.S.	1763	1786	1798	1819
12.	William Richard Hamilton, F.R.S.	1777	1804	1809	1859
13.	Matthew Raper, F.R.S.	(? <i>cir.</i>) 1740	1785	1810	1825
14.	Taylor Combe, F.R.S.	1774	1799	1813	1826
15.	James Heywood Markland, F.R.S.	1788	1809	1827	1865
16.	John Gage Rokewode, F.R.S.	1786	1818	1829	1842
17.	Albert Way	1805	1839	1842	1874
18.	William Henry Smyth, F.R.S.	1788	1821	1847	1865
19.	Percy Viscount Strangford, F.R.S.	1780	1825	1852	1855
20.	Henry Ellis, F.R.S.	1777	1807	1853	1869
21.	Augustus Wollaston Franks, F.R.S.	1826	1853	1858	1897
22.	Charles Spencer Perceval	1829	1860	1867	1889
23.	Henry Salusbury Milman	1821	1854	1880	1893
24.	Harold Viscount Dillon	1844	1873	1894	
25.	Frederick George Hilton Price	1842	1882	1894	1909
26.	Edward William Brabrook	1839	1860	1909	

V. *The Church of Edward the Confessor at Westminster.* By the Very Rev.
JOSEPH ARMITAGE ROBINSON, D.D., F.S.A., Dean of Westminster.

Read 10th February, 1910.

IN seeking to recover the form and extent of the church which St. Edward built, we have two sources of direct evidence to guide us. First, there is the scanty evidence in stone, which consists of three Norman bases which remain beneath Abbot Ware's pavement in the presbytery. Secondly, we have the written evidence of a description of the church in a biography of the king written immediately after his death.

I shall begin with the evidence in stone. Last Easter (1909), following a hint of Mr. Lethaby's, I visited the magnificent ruins of the abbey church of Jumièges, and I was greatly struck by the resemblance of certain Norman bases in the presbytery to those which remain in a similar position at Westminster. I made a rough sketch of one of these, and with the help of a friend took some hasty measurements from which it was possible to set out an approximate plan of their position. On my return I found that the bases corresponded very closely in size on the ground plan with those at Westminster, but that they differed slightly in relative distances. At Jumièges the distance between two bases on one side was 1 foot less than at Westminster (13 ft. 9 in. as against 14 ft. 9 in.), but the distance from base to base across the presbytery was 8 inches more (27 ft. 4 in. as against 26 ft. 8 in.). It appeared certain that at Jumièges the original presbytery consisted of two bays and an apse, and that the bases were set against an enclosing wall, the ambulatory being an addition of a much later period. It appeared to me therefore that I had a *prima facie* confirmation of Mr. Lethaby's dictum: "If we seek for a direct prototype [of Westminster] it is probable we should look to Jumièges."¹

There is ground for thinking that Edward was at one time befriended at Jumièges by the abbot Robert, whom he afterwards brought to England and made Bishop of London. Robert, to the disgust of the English, became Edward's chief adviser, and after he had been made Archbishop of Canterbury the quarrel became so fierce that he had to go into exile; he died at Jumièges, and was buried there in the great church of his own building. We can hardly

¹ *Westminster Abbey and the King's Craftsmen*, 100.

doubt that Robert, who was at Edward's right hand from 1043 to 1052, helped to determine the plan of the king's new church at Westminster.

But one grave difficulty presented itself to my mind. All the authorities insisted that Westminster had a pillared apse and an ambulatory, probably with radiating chapels. Subsequent visits, however, to Cérisy-la-Forêt, Lessay, and some other early Norman churches, made me thoroughly sceptical on this point; and it is with great satisfaction that I find that Mr. Lethaby has on grounds of his own been led to revise his earlier judgement and has pronounced in favour of a closed-in presbytery "of the normal two-bayed type found in early Norman churches".¹

So much for the existing fragments of St. Edward's church. I turn to the written evidence. It comes to us from a writer who dedicated his work to Queen Edith, who died in December, 1075. Indeed it is quite possible that he wrote before the end of 1066, for he makes no reference to the Conquest. His style is defective and sometimes obscure; but I think that his description tallies admirably well with a church such as Jumièges was, and such as Cérisy in its main features is to-day.

Before discussing afresh this much-debated description, I will try to put into simple words what I imagine we should have seen in the year 1066. Passing east of the old Saxon church, in which the monks have continued till now to chant their offices, we enter the new church by the west porch. We find ourselves in a nave of eight bays, some 60 feet high to its wooden roof, some 72 feet wide from wall to wall.² The aisle-arches are of modest height; the triforium-arches are large single openings; above these there is a wall with small clerestory windows. Going forward to the middle of the crossing, we find ourselves in the quire, which is set under the great tower. Before us is the presbytery, consisting of two bays, and a vaulted apse; at the entrance of the apse stands the altar of St. Peter. The presbytery is walled in on either side. Looking now to the south side of the cross (and the north side has a similar arrangement) we see a low gallery, sustained by a strong pillar and a vault; above and beneath the vault an apse is thrown out to the east.³ The gallery

¹ *Journal of the R.I.B.A.*, 3rd S. xvi. 80. Models in stone of the Norman bases (a quarter of the original size) have been made, and are preserved in the Norman undercroft. Mr. Lethaby has acceded to my request that he would append a note on the architectural conclusions which may be drawn from them.

² Lanfranc's nave at Canterbury was 72 feet wide, which is one foot less than the nave of his abbey at Caen (Willis, *Architectural History of Canterbury*, 64 f. Mr. J. Bilson, however, tells me that the nave of St. Stephen's at Caen is practically 74 feet wide). The present nave of Westminster is 73 ft. 5 in. across from wall to wall.

³ Compare the language of Gervase of Canterbury, who thus describes the "cruces", or transepts, of Lanfranc's church: "utraque (sc. crux) in medio sui pilarium fortem habebat, qui fornicem a parie-

over this vault is reached by a circular staircase, bulging out in the corner of the transept. Above this low gallery the south wall of the transept rises unbroken, save for a few windows, to the wooden roof.

We may now proceed to consider the text of the passage in Harl. MS. 536, in which the process of the building of St. Edward's church is described. I have divided it into paragraphs according to the matters to which the writer refers, viz. (1) the presbytery, (2) the nave, (3) the crossing, (4) the site in general.

Principalis arae domus altissimis erecta fornicibus quadrato opere parique commissura circumvolvitur.

Ambitus autem ipsius aedis duplici lapidum arcu ex utroque latere hinc et inde fortiter solidata operis compage clauditur.

Porro crux templi, quae medium canentium deo chorum ambiret, et sui gemina hinc et inde sustentatione mediae turris celsum apicem fulciret, humili primum et robusta fornice simpliciter surgit, coeleis multipliciter ex arte ascendentibus plurimis tumescit, deinde vero simplici muro usque ad tectum ligneum plumbo diligenter tectum pervenit : subter vero et supra disposite educuntur domicilia, memoriis apostolorum, martyrum, confessorum ac virginum consecranda per sua altaria.

Haec autem multiplicitas tam vasti operis tanto spatio ab oriente ordita¹ est veteris templi, ne scilicet interim inibi commorantes fratres vacarent a servitio Christi, ut etiam aliqua pars spatiosae subiret interjaciendi vestibuli.

I venture to offer the following translation of this passage :

The sanctuary of the high altar rises up with very high vaults : it is made with squared stones and even jointing, and is brought round in a curve.

But the main church is compassed about with a double stone arching on both sides, and is closed in, this way and that, by solid work of a strong construction.

Then the crossing, which is to contain in the middle the choir of those who sing God's praises, and with its twofold abutment on either side to steady the lofty summit of the tower in the middle, rises simply at first with a low and sturdy vault, swells with many a winding stair of elaborate artifice, but then with a simple wall reaches the wooden roof, which is carefully covered with lead. Above and below projecting chapels are arranged, to be consecrated by their altars to the commemoration of apostles, martyrs, confessors, and virgins.

Now the whole of this vast and elaborate work was started so far east of the ancient church that the brethren of the place might not have to cease in the meantime from the service of Christ, and also that some part of the porch which was to be set in between might have room to follow on.

A few notes must be added on points of interest or difficulty.

tibus prodeuntem in tribus sui partibus suscipiebat . . . crux australis supra fornicem organa gestare solebat : supra fornicem et subter porticus erat ad orientem porrecta " (Rolls Series 73, i. 10).

¹ *ordita*] *orditum* MS. The writer, or a copyist, wrote it carelessly, as though the nominative had been *multiplex opus*.

Principalis arae domus] This, and not *principalis arae domus*, which is given in Camden's extract (*Reges, Reginae, etc.*, preface), is unquestionably the right reading. *Domus* is frequently used not for a complete house, but for an office or chamber in a building. Here it is the portion of the building which contains the chief altar; as the *domicilia* mentioned later contain inferior altars, and are on a smaller scale.

altissimis fornicibus] This can hardly be taken as plural for singular, and explained of the high vault of the apse alone. Two interpretations suggest themselves: either (1) the two bays of the presbytery were vaulted also, as at the Abbaye aux Dames at Caen and in some other early churches in Normandy; or (2) the presbytery was walled only up to the floor of the triforium, and the upper vault of the aisle was visible, as might well be the case if the triforium arches were large and if there was a semi-barrelled vault (*demi-bercean*).¹ The first appears to me the more natural interpretation.

Ambitus autem ipsius aedis] *Ambitus*, and not *abitus*, is the reading of the MS. Assuming, as I do, that the nave was built, and was more than thrice the length of the presbytery (as at Jumièges and at Cérisy), it is natural to speak of the nave as *ipsa aedis*. The double row of great arches, one over the other, would be the most impressive feature as you looked from side to side. *Autem* marks the contrast in passing from the presbytery to the nave.

crux templi] The word *crux* is at first used of the whole crossing from north to south, including the space under the tower. But it is presently used with reference to one side alone, as the gallery and wall at one end are described. So Gervase of Canterbury, describing Lanfranc's church, says: *praedicta magna turris crucem habebat ex utroque latere, australem scilicet et aquilonalem*.²

ambiret] The tense is explained by the foregoing context: for the writer's description does not come at the end of Edward's life, but while the work is still in progress. He uses the present tense for the most part, the "historic" present; and his relative clauses are in the imperfect subjunctive, expressive here of intention. Compare also, towards the end, *consecranda* and *interjaciendi*. But we may not assume from this that when he wrote the things described were still only in contemplation. He is describing the process of building.

simpliciter] This is perhaps in contrast to the double arcade where there is a triforium and not an open gallery.

coeleis multipliciter, etc.] *Multipliciter* is in rhetorical contrast to the preceding *simpliciter* and the following *simplici muro*.

interjaciendi vestibuli] Lit. "of a porch to be made to intervene": not *interja-*

¹ As at St. Stephen, Caen, and at Gloucester. A trace of such a vault is to be seen in the south aisle of the presbytery at Cérisy.

² Rolls Series 73, i. 10.

cendi, as it has been sometimes falsely printed. There is nothing in the language here used to suggest a temporary vestibule connecting the old Saxon church with the unfinished Norman nave. I imagine that "some part of the porch" projected conspicuously westward. The towers on either side may not have been at first carried up any great distance. There is such a projecting porch at Jumièges; and a most interesting porch of a different character is a striking feature of St. Nicholas at Caen. That the porch was a feature at Westminster will appear from a passage of Sulcard to be quoted presently.

This, then, is what St. Edward's church meant to a man who had never seen anything on so elaborate a scale before, and who writes of it enthusiastically and with considerable descriptive skill.

First, a presbytery with high vaults and a circular ending, built with even masonry.

Secondly, a great nave with two rows of arches, one above the other, on each side, and a strong outer containing wall.

Thirdly, a crossing with various notable features: namely, a lofty tower; a quire beneath it; and at either end of the crossing, instead of the triforium, a low gallery, with a spiral staircase partly in the thickness of the wall, and a long stretch of plain wall up to a wooden roof covered with lead. Chapels project on the level of the gallery and on the ground floor below.

The new church stands well to the east of the old, so that the monks remain in the interval undisturbed in their services, and there is room for a projecting porch at the west end.

But a question must at this point be faced: Did St. Edward finish his church? For nearly half a century we have been persistently assured by every writer on the subject that he did not. In 1860, indeed, when Gilbert Scott read the paper which gave its name to the important collection of studies entitled *Gleanings from Westminster Abbey*, he had no suspicion that St. Edward's church was left unfinished at his death: neither Wren, nor Widmore, nor Brayley had made any such suggestion. J. H. Parker, who edited the *Gleanings*, appended a footnote to Scott's paper in which he said: "It is clear that the choir was the only part finished at the time of the dedication." Scott then adopted this view, basing it, as apparently Parker had done, on the fuller text of the contemporary biographer which Dr. Luard had only just published.¹ Stanley in his first edition of the *Memorials of Westminster Abbey* (1863) adhered to the older view; but in later editions he recognized the new opinion of the experts. Since then we have had nothing else taught us but this novel doctrine, which has now come to be considered unimpeachable orthodoxy.

¹ *Lives of Edward the Confessor* (Rolls Series 3), 417. Previously the passage had only been known from an extract given by Camden in his *Reges, Reginae, etc.*

Let us turn back to the earliest documentary evidence, and investigate the question afresh.

Sulcard is our first Westminster historian. He was a monk under Abbot Vitalis, who was summoned from the abbey of Bernay by William the Conqueror in 1076, and was buried in the south walk of the cloister about the year 1085. We note in passing that this place of burial suggests that the cloister and frater were at least some way advanced by this date: it was a common practice to bury an abbot on the site of his building operations.¹ Sulcard's narrative is dedicated to Abbot Vitalis, whom he speaks of as both "governing and constructing" the monastery (*de hujus beati Petri quod regitis et construitis monasterio*). Most of Sulcard's work is taken up with the earlier history of the abbey: only at the close does he come to the Confessor and his rebuilding. "Up to this time," he says, "had lasted the same monastery which we have all seen: it was purposely destroyed that the nobler one might rise which now we see, wherein so great a king might choose his sepulture, and with his bountiful and energetic queen await his last day. Accordingly the work that had been begun was pushed forward by the king's command, and after a few years, supported on divers columns and vaulted with manifold arches on every side, being finished to the very porch (*vestibulum*), it was shown forth to the bishops for consecration, and to all the nobles of the realm."

As this passage has never been printed, though the most important sentences are cited in Widmore's footnotes,² I give here the text from Faustina A iii. f. 16:

Perdurabat adhuc idem monasterium quod omnes vidimus; habito consilio est dirutum, ut surgeret nobilius quod nunc videmus, et ubi tantus rex sepulturam sibi eligeret, et cum sibi desponsata unice liberalitatis et industriae regina diem supremam expectaret. Festinatur ergo ex praecepto regis coeptum opus; et post paucos annos, diversis fultum columnis et multiplicibus volutum hinc et inde arcubus, usque ad ipsum vestibulum perfectum praemonstratur consecrandis (*sic*) episcopis et cunctis regni proceribus.

Sulcard then has no notion that Edward's church was left unfinished. On the contrary he affirms that it was "completed to the very porch".

Our next trustworthy evidence is that of William of Malmesbury (1124), who says in well-known words,³ that Edward was buried in the church of

¹ About the same time Athelais, the first wife of Geoffrey de Mandeville, was buried there: as appears from his gift of the manor of Eye (Westminster "Domesday", f. 103): "Ego Goffridus de magna villa pro anima mea et pro anima conjugis mee Athelais in claustrum sancti Petri sepulte, qui et juxta eam sepeliendus sum," etc. Abbot Edwin had already been buried in the cloister, probably in the east walk. So also Hugolin, King Edward's chamberlain; and Sulcard was to follow. The remains of these three, together with the supposed Queen Ethelgoda, were afterwards disturbed at the time of King Henry III.'s rebuilding, and placed in one tomb in the chapter-house (Flete, 83).

² Widmore, *History of Westminster Abbey* (1751), p. 10 f.

³ *Gesta Regum*, Rolls Series 90, i. 280.

Westminster, which was the first built in England in that style (*illo compositionis genere*) which now all men imitate at vast expense. He gives no hint that Edward's church was an unfinished fragment. Nor does Osbert, who wrote *St. Edward's Life* in 1138; nor any ancient author that I know. The tradition, indeed, was expressly to the contrary; for Bishop Gilbert Foliot, whose powerful advocacy largely contributed to bring about the canonization of the saint, writing to the Pope in 1160 speaks of the church which King Edward had "brought to a most happy completion" (*beatissime consummavit*).¹

If indeed Edward had left the church unfinished, we should certainly expect to hear that William, who spoke in honorific terms of the place of his coronation, and was diplomatically eager to honour Edward's memory, had contributed to the work of completion. On the contrary we find the tradition, for we cannot dignify the evidence of what is called his First Charter by any higher term, that William gave a hundred pounds of silver to complete the boundary walls (*macerias*) of the abbey, besides erecting costly tombs for Edward and Edith, and making substantial gifts of estates.²

So far then as written evidence goes, I have not found a hint anywhere that Edward's church was unfinished at the time of its consecration: all the evidence goes the other way.³ Of architectural evidence all that has ever been pleaded is the discovery of "some rather rich fragments of Norman work, found under the nave floor, when the new stalls were being erected in 1848" (Scott: who pictures them in *Gleanings*, p. 15). But these may have come from a screen, or some other twelfth-century addition to the main structure.

Let us now pass from the structure of the Confessor's church to consider some of the details of its arrangement.

The quire was under the tower: it is not unlikely that it occupied a bay to the west besides. Analogy with other churches suggests that it had a small matin altar at the east of it, and was closed at the west by a stone screen with an entrance door. A bay west of the choir entrance we should expect a rood-loft, with a beam above it carrying a cross with Mary and John, and perhaps two

¹ *Materials for Life of Becket*, Rolls Series 67, v. 19: "in ecclesia . . . quam a fundamentis erectam constituit, et amplissime dotatam, omnibus quae ad decorem domus Dei sunt in honorem Dei et beati Petri nobilitatam, beatissime consummavit."

² D. (= Westminster "Domesday") ff. 51 b, 52 b.

³ It is right to refer to a statement quoted by Mr. Lethaby (p. 104) from Leland, who extracts it from a chronicle of Malmesbury: "Anno D. 1110, inchoatum est novum opus Westmonasterie" [Leland, i. 305]. The date is a mistake for 1220, and the reference is to the new Lady Chapel: the next sentence speaks of the removal (*hoc anno*) of the Canons of Salisbury from Old to New Sarum. The whole is given in *Eulogium Historiarum*, Rolls Series 9, iii. 116, under the year MCCXX (not MCX, as Leland must have read).

cherubim, as in Lanfranc's nave at Canterbury, and certainly in later times at Westminster. The rood-screen would be pierced with two small doors, between which would stand the nave altar dedicated to the Holy Cross.

As it is most important to distinguish inference from fact, I will point out that the one attested fact here is that the quire was under the tower. I shall be able later to prove the position of the altar of Holy Cross.

Returning eastwards, we have reason to believe, from what has been said above, that there was provision for five altars on the ground floor, each in its own apse: namely, the high altar at the entrance of the great apse (and therefore on the very spot where it stands to-day); an altar at the end of each aisle of the presbytery, and an altar in the east side of each transept. On the upper floor there was provision certainly for two more, and perhaps for four.

The high altar was dedicated to the Prince of the Apostles. Can we say anything as to the rest? Let us begin with what is most certain, the altar of St. Nicholas. The Anglo-Saxon Chronicle under the year 1072 tells us that Egelric, once Archbishop of York, then Bishop of Durham, after a twelve years' sojourn at Peterborough was sent as a prisoner by William to Westminster: "and there he died on the Ides of October (Oct. 15th), and is there buried within the monastery in the chapel of St. Nicholas."¹ It is interesting to note so early a dedication to St. Nicholas, before his violent translation from Myra to Bari had opened the period of his great popularity.² The present position of the chapel of St. Nicholas gives ground for a conjecture as to its place in the Norman church, viz. at the end of the south aisle of the presbytery.

The next evidence that I propose to take comes from Abbot Ware's Customary. But I must say at once that this is a dangerous book to handle. It is responsible for a number of pretty myths already, and it will mislead any one who does not constantly remember that it was begun in 1266, when there was nothing but a nave for the monks to worship in, and that it was not finished till some years after the death of King Henry III, when the new choir was in full use and linked on to the old nave.

No one who has once read them can forget the pathetic sentences in which Gervase of Canterbury tells of the five years' exile in the nave of Christ Church after the great fire of 1174.³ No such hideous disaster had befallen the West-

¹ "Innan sēe Nicholaes portice": rendered "in porticu sancti Nicholai", in *Waverley Annals*, Rolls Series 36, 192. For the use of "porticus" as a chapel cf. Bede, *H. E.* ii. 3, v. 20: also Ethelwold's *Regularis Concordia*, "eundum est ad matutinales laudes de Omnibus Sanctis, decantando antiphonam ad venerationem sancti cui porticus ad quam itur dedicata est" (Reyner, *Apostol. Ben.*, app. p. 81) Willis, *Canterbury*, p. 39, gives reasons for his bold rendering of it as *apse*.

² "The earliest authentication in an English calendar of the feast of St. Nicholas" appears to be in the Cotton MS., Nero A ii, of the eleventh century (Edm. Bishop, *Bosworth Psalter*, 171).

³ Rolls Series 73, i. 5, 10: "in hac predicta navi . . . post incendium per quinquennium exulavimus."

minster monks, but none the less they had for the time lost at least ten altars, and for more than twenty years their elaborate ritual was huddled up in the nave. The effect of this upon their customs is directly referred to in a sentence of the Customary, which occurs in a part of the manuscript considered too defective to be printed in Maunde Thompson's edition. I quote it from the original transcript which he made for the Dean and Chapter: "This, as has been said already, has gone out of use in modern times for lack of altars."¹ No doubt the inevitable breaches of custom, which were of so long standing already, made it necessary to regularize proceedings in view of a return to the normal conditions of worship. The appearance of a new Customary at this particular moment is naturally explained by such a necessity.

We must therefore try to distinguish between (1) old usages, as they are expressly called, which belonged to the Norman church before 1245; (2) temporary usages, which were necessitated by a limitation to the nave; and (3) new or revived usages, when the new quire was united to the old nave. For a hundred years after this the monks had a complete church; but then for a century and a half they lost their nave; and they had hardly regained it when the summons began to sound for their own departure. These considerations must be borne in mind if we are to find safe guidance in the Customary for any of the various periods of the church's history.

A most important passage for our present purpose is found on pp. 45, 46 of the Customary.² In old days, we are told, the sacrist kept seven lamps burning day and night in the church; but now there are only five. The reason of the change need not detain us now. Here we are concerned with the five, "which without doubt, as of right and ancient custom, the sacrist is bound to find." These are:

- (1) before the altar of Holy Cross in the nave;
- (2) before St. Paul's altar and the image of the Crucified, to kiss the feet of which the people used to go up steps on one side and down on the other;
- (3) before the old altar of St. Mary;

¹ Transcript, p. 445: "hoc, ut prefertur, pro defectu altarium ab usu recessit moderno." The corresponding passage in the derived Customary of St. Augustine's, Canterbury, (p. 311) flounders curiously in its attempted adaptation.

² "Set idem sacrista quinque proculdubio lampades per totum annum, quae in ecclesia die noctuque ex recta et antiqua consuetudine jugiter ardere solent, invenire tenetur: unam videlicet ante altare sanctae crucis in navi ecclesiae; . . . et aliam ante altare beati Pauli et crucifixi imaginem, ad quam devocionis causa ad orandum pedesque illius osculandos plebei per gradus ex una parte scandere et ex alia parte descendere consueverant; atque terciam ante vetus altare beatae dei genetricis Mariae; quartam vero coram altare sanctae trinitatis; et quintam coram altare beati patris nostri Benedicti."

(4) before the altar of the Holy Trinity;

(5) before St. Benedict's altar.

Now this is "ancient custom", belonging to the Norman church before its eastern portion was pulled down; and it is custom which is to rule the future. But we note a reference to something which the people "used to do", as though they could do it no longer.

Here, then, we have a list of the most important altars of the Norman church after the altar of St. Peter. Let us take these altars in turn.

1. The altar of Holy Cross in the nave. We had assumed the existence of this altar; and the proof of its existence carries with it the *pulpitum* with its two doors and the rood-beam and rood above it.¹

2. Where was St. Paul's altar, and the crucifix, to kiss the feet of which the people went up by steps on one side and came down on the other? I suggest that the crucifix was in the gallery of the north transept, and that St. Paul's altar was in the apse close by. Turret staircases in the north-east and north-west corners would provide the way up and the way down; and the north part of the church being furthest removed from the monastic buildings could without inconvenience be made accessible to the public.²

3. The old altar of St. Mary. A new Lady Chapel had been begun in 1220, a quarter of a century before the Norman church was interfered with. It had its own special *custos*; but the old altar remained under the charge of the sacrist. Where then was it? I should look for it on the north side of the church, if only because there certainly was a chapel of the Virgin with a wonder-working image by the north door in the fourteenth century.³ If we place the old altar of St. Mary in either of the apses on the ground floor on the north side, we shall again be meeting the needs of the general public.

4. The altar of Holy Trinity. We have a curious notice of this altar in the Customary (p. 240, and also in the transcript, p. 451). It used to be the custom for monks who had been bled (*minuti* or *sanguinati*, as they are called)

¹ The word *pulpitum* is used in various senses. I consider that the use of it for the rood-screen with its two doors and altar between, as distinguished from the quire-screen with its one door, is justified not only by the language of Gervase (Rolls Series 73. i. 9. 10), but also by the following passage relating to Bury St. Edmunds (M. R. James, *Camb. Antiq. Soc. Communications*, xxviii. 178): "A penitent under *gravis culpa* . . . pergit in ecclesiam usque ad magnum hostium chori, scilicet in medio loco inter pulpitum et predictum hostium, et ibi debet sedere super magnum scamnum" (comp. *Rites of Durham*, 33 f., "under the said loft by the wall there was a long forme which dyd reche from the one Roodedore to the other").

² So at St. Albans (*Gesta Abbatum*, Rolls Series 28 [4]. i. 287) the old cross, etc. which had been in the middle of the church, being removed when new ornaments were made, were placed "in ecclesiae nostrae parte aquilonari, ad laicorum et omnium illic adventantium aedificationem".

³ Cf. Indulgence (D. [=Westminster "Domesday"], f. 432): "capella ad ostium boreale . . . et imago virtuosa ejusdem virginis."

to say "the three prayers" on the way to matins, each as he happened to arrive before the altar of Holy Trinity: "and so they should now," adds the Customary. Then they pass on to the altar of St. John Baptist, or some other more convenient place assigned for the purpose, to say matins; but they do not begin the fifteen psalms till the brethren have begun them in the quire. I cannot locate either of these altars: but I may add some information as to one of them.

In the thirteenth century there was a tradition that it was before the altar of the Holy Trinity that St. Edward had his vision of the drowning of the King of Denmark. King Henry III. made a grant of a candle of one pound of wax from a tenant in London, to be rendered annually "on the vigil of the translation of Saint Edward, which is a fortnight after Michaelmas, for the altar of Holy Trinity, where the same Saint Edward saw the king of the Danes drowned".¹ The warrant is dated at Woodstock, 27 August, 1246; that is, more than a year after the pulling down of the Norman church was begun.

Now the earliest authority for the legend about the Danish king is Osbert's *Life of St. Edward*, which he wrote in 1138 before he went to Rome in his vain attempt to secure the Confessor's canonization. Osbert relates the vision early in his book as occurring in the church of St. Peter on Whit-Sunday, when the king was present in full state (*agebat in sceptris*). He fixes the time in his elaborate way by saying: "about the hour when the Saving Victim of the Paschal Lamb was being received by the people." He does not name the altar, but we can hardly imagine that any but the high altar is intended.²

The fact is that in Osbert's day not this, but a yet more notable vision belonged to the altar of the Holy Trinity, the vision which Edward and Leofric had together of the child Christ in the Blessed Sacrament. For this, again, Osbert is our earliest authority; and he begins his story with the words: "Once upon a time the aforesaid Prince was in the church of Westminster at the altar of the Holy and Undivided Trinity."³

But however the legend may have shifted, it is plain that in later days the altar of Holy Trinity was held in special reverence in the belief that before it the saint had seen one of his most remarkable visions. It was somewhere in the Norman church, for the sacrist had to keep a lamp always burning before it.⁴ How then could St. Edward have seen a vision before it, or even have been thought some eighty years afterwards to have seen a vision before it? It is conceivable that one or more altars in the new church were available for use

¹ D. f. 364: "ad altare sanctae trinitatis, ubi idem sanctus Edwardus vidit regem Dacorum submersum."

² Osbert MS., Brit. Mus. Add. MS. 36737, f. 142.

³ Osbert MS. f. 147.

⁴ I may add here that in King Henry III.'s time a certain rent was granted to the "procurator" of this altar by Master Simon of London (D. f. 373 b).

some years before the whole was dedicated. It is also conceivable that this Trinity altar had been actually transferred from the old church, on account of its special associations, to the new. But I can render no really satisfactory account of the matter, and I do not know of anything to show where in the yet later church the Trinity altar stood.

5. I pass on to the last altar on the list, the altar of St. Benedict. Here we have some highly interesting material from the Customary. Monks who are ailing, but not so ill as to have to leave the dormitory and go into the infirmary, are allowed for three days, or, in some circumstances, for as much as nine days, to be *extra chorum*, out of quire. They are to sit in silence with their psalters before the altar of St. Benedict while the convent is in cloister, and also during the day-hours and the masses. They are to listen to the convent saying the hours, or, if they prefer, to say them privately with the *minuti*, or bled monks, if there be any. They have meals in the infirmary, but may not miss Chapter or Collation. They are to hear compline before St. Benedict's altar, and to say the three prayers there, and wait for the brethren to come out of quire and fall in at the end or else in their proper rank.¹

Similar regulations are given, with appropriate variations, for monks who have been bled; and, more particularly, they are ordered during certain services to sit *ad librum minutorum ante altare sancti Benedicti*.² This is the Seyny Book, which I have discussed elsewhere.³ We are now only concerned with St. Benedict's altar, which was a kindly refuge for monks who were temporarily disabled from taking their full share in the services of the choir.

Where, then, was St. Benedict's altar? There can be little doubt that it was in the south transept. If we place it in the apse below the gallery, it would be close to the place where St. Benedict's chapel is to-day.

We may now spend a few moments in locating the earliest royal tombs.⁴ King Edward died on 4th January, 1066, and was buried the next day.⁵ We are

¹ Customary, transcr. pp. 425, 428 (cf. i. 297, 299); also ii. 239. I give parallel references to vol. i, the St. Augustine's Customary, where the Westminster Customary is not printed. At St. Augustine's the altar of St. Gregory held a corresponding position, and the altar of St. Benedict corresponded to the altar of Holy Trinity at Westminster.

² Customary, ii. 239, 241 ff.; transcr. p. 453 (i. 316).

³ *MSS. of Westminster Abbey*, 9-12.

⁴ In the old church Harold Harefoot had been buried, but he was dug up almost at once by his brother Harthacnut (Anglo-Saxon Chronicle, *sub anno* 1039).

⁵ I follow the earliest authority, the contemporary *Vita Edwardi*, which places the death "pridie nonas Januarii" (p. 434); as also does Osbert (MS. f. 153). This harmonizes with the fact that the feast of the "Depositio S. Edwardi" was kept on 5th January. But the Anglo-Saxon Chronicle says that he died "on Twelftan æfen", and was buried "on Twelftan dæg". So, too, William of Malmesbury (1124) places the burial on 6th January, "die Theophaniae" (*Gesta Regum*, Rolls Series 90, i. 280); and

told that he was laid in front of the altar of St. Peter.¹ This must mean within the presbytery, for the quire with its matin altar was under the tower. Osbert, after he has told the tale of Wulstan striking his staff into King Edward's grave-stone, adds that in consequence of the miracle, "William the conqueror of the English fashioned a shrine of gold and silver which to this day overshadows and covers his glorious body."²

In 1075, says the Anglo-Saxon Chronicle, "Eadgyth the lady died seven nights before Christmas, at Winchester: she was the relict of King Edward, and the king had her brought to Westminster with great worship, and laid her by King Eadward her lord." For her too, as William of Malmesbury tells us, "the Conqueror made a costly tomb of silver and gold."³

On 1st May, 1118, the "good queen" Maud died at Westminster, and was there buried.⁴ A letter of Pope Innocent II. to her brother David, King of Scotland, speaks of her as lying "in sacrario".⁵ A passage of the Customary (p. 45) shows that Queen Edith was buried on the north side and Queen Maud on the south side "in presbyterio"; and that by ancient custom a lamp had been kept perpetually burning at the tomb of each, until King Henry III. made a modification of this arrangement. Queen Maud's lamp had been provided for by a grant of one obol daily from King Henry I.⁶

It seems reasonable to conclude that these three tombs were in the first bay of the presbytery: that of King Edward being in the middle, and those of the two queens near the wall on either side.

Ordericus Vitalis gives "nonas Januarii" as the day of death (ed. Le Prevost, ii. 118). Flete likewise says: "obiit nonis Januarii in vigilia Epiphaniae domini" (p. 82); and he is followed by Widmore and Stanley.

¹ *Vita Edwardi*, p. 434, "coram altare beati Petri"; Sulcard MS. f. 16*b*, "ante ipsum altare principis apostolorum"; Osbert MS. f. 153, "secus altare beati Petri apostoli."

² Osbert MS. f. 156: "qua de causa triumphator Anglorum Willelmus super sanctum regem Edwardum ex auro et argento capsae fabricam condidit, quae utique in hodiernum diem in ecclesia beati Petri apostoli gloriosum corpus obumbrat et tegit."

³ *Gesta Regum*, Rolls Series 90, i. 332: "quae apud Westmonasterium studio ejus [sc. Willelmi] prope conjugem locata habet tumbam argenti aurique expensis operosam."

What is called the First Charter of William I. contains the statement that on his first visit to the abbey the Conqueror laid two precious palls on King Edward's grave (D. f. 51*b*): and in reference to a later occasion it says (D. f. 52*b*): "et quia macerias [= enclosure-walls?] ecclesiae maxima ex parte jam imperfectas esse cognovi, ad perficiendum quod in illa residuum fuerat centum libras argenti devotus optuli. Itaque ob reverentiam nimii amoris quem erga ipsum inclitum regem habueram, tumbam ejus et reginae juxta eum positae ex auro et argento fabrilis opere artificiosi decoris mirifice operiri feci." The charter is dated 1067, but the queen did not die till 1075. Yet, though not a genuine document, it may contain a true tradition on these points.

⁴ Anglo-Saxon Chronicle.

⁵ D. f. 165.

⁶ D. f. 363*b*.

Notes on the Plan of the Confessor's Church.

For the accompanying plan (plate XIII) I am indebted to the skill of Mr. A. G. Wallace, who has taken immense pains in working out my conception of St. Edward's church and in showing its position relatively to the existing buildings.¹ Some notes by way of explanation and justification are here given: but it will be obvious to any one who has experience of such conjectural reconstructions that many points of detail might quite reasonably be treated in a different way from that which I have suggested.

The actual remains of the Norman church are no more than the three bases underneath the pavement of the presbytery and the curve of the foundation of the apse which has been found since the above paper was written. These are shown in plate XIV.

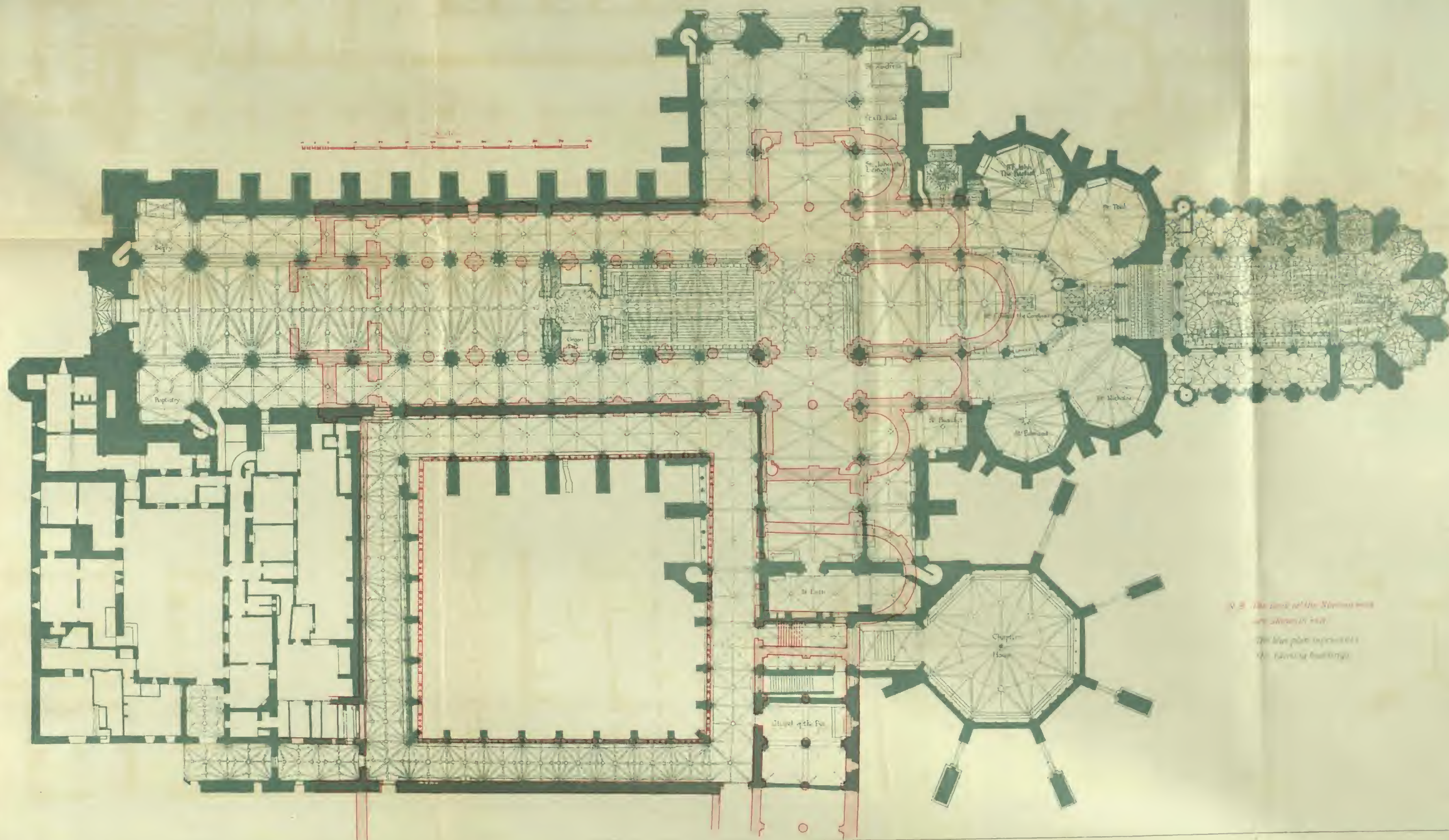
But other portions of the Norman buildings remain, which are of great importance in deciding the extent of the church itself. Last year excavation in the cloister garth revealed the line of the western arcade of the Norman cloister, just east of the present arcade and diverging from it more widely as it approaches the church. We thus learn that if the cloister walk had been left where it was, a great buttress of the new work would have come in the middle of it. So it had to be shifted westward to avoid this; and yet it had still to reach the frater door at the southern end. The old line of the arcade is now marked by stones embedded in the grass.

The change thus made was a serious one; for it necessitated the demolition of the cellarer's buildings, which formed the western boundary of the cloister, occupying the same position as the fine *cellarium* which we still admire at Jumièges. Abbot Litlington erected new buildings for the cellarer in the range which now bounds the eastern side of Dean's Yard.

The south walk of the cloister is still bounded by the Norman wall of the frater, the Norman arcading being visible on its southern face. The undercroft of the Norman dormitory gives us the eastern boundary of a part of the east walk; and it can easily be seen that this is not in line with the new work of the transept beyond the entrance to the chapter-house.

Since the foregoing paper was written, M. Roger Martin du Gard's interesting book on Jumièges has come into my hands. He shows that the

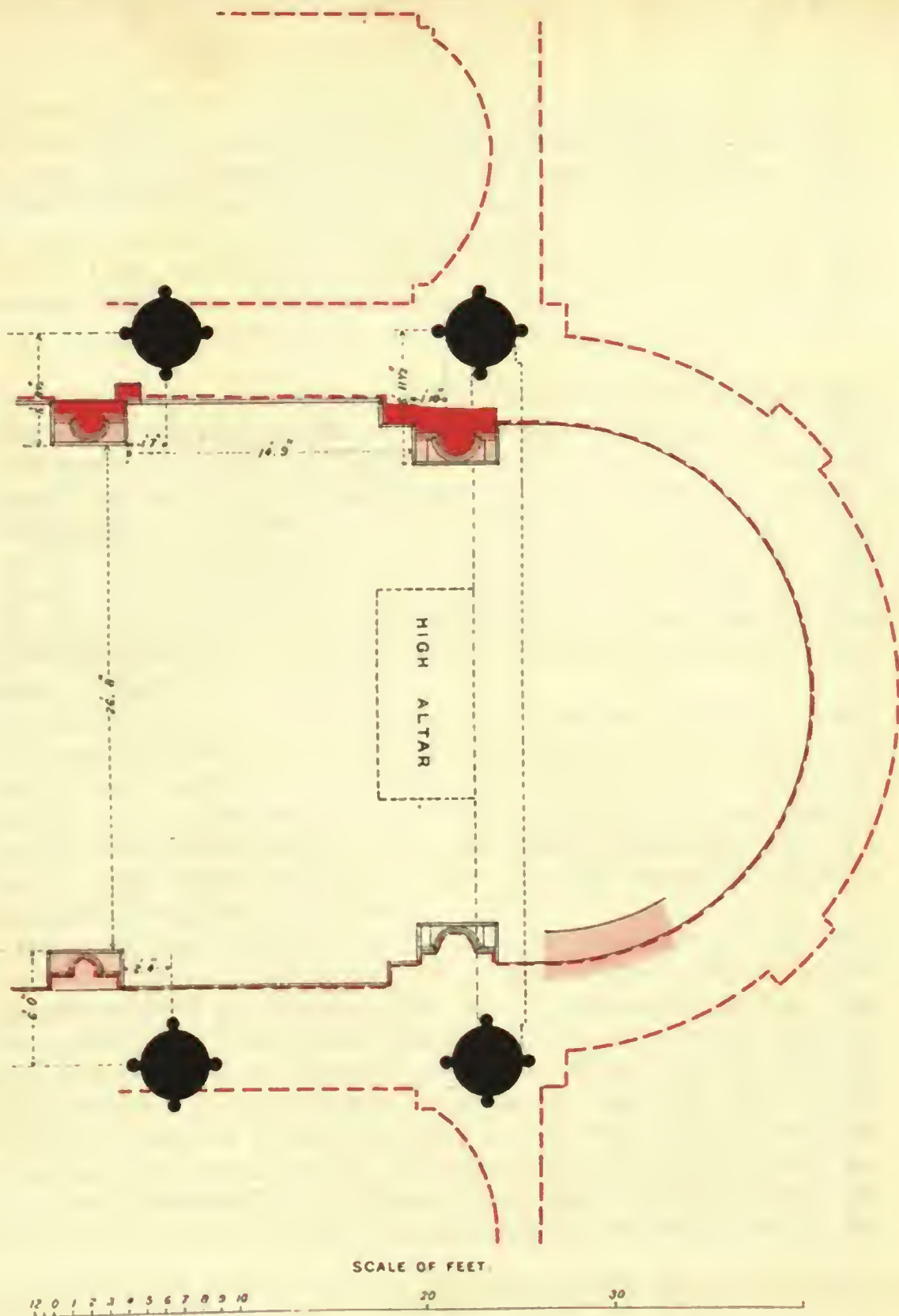
¹ A preliminary sketch was made for me by the Rev. R. G. Parsons, Fellow of University College, Oxford, who went with me to Jumièges at Easter, 1909, and to whom I owe valuable suggestions. I have used as the groundwork Mr. J. H. Cheadle's excellent new plan of the existing church.



*N.B. The work of the Norman work
is shown in red.
The blue plan represents the
later additions.*

WESTMINSTER ABBEY, - PLAN SHOWING RELATIVE POSITIONS OF THE CHURCH OF EDWARD THE CONFESSOR AND OF THE EXISTING CHURCH.





WESTMINSTER ABBEY, PLAN OF THE NORMAN BASES OF THE PRESBYTERY OF EDWARD THE CONFESSOR'S CHURCH.

gallery in the transept there came right out to the line of the arcade of the nave, covering the space between the aisle of the presbytery and the aisle of the nave. It may have been so at Westminster, for such an arrangement will suit quite well the phrases of the Latin description. But I have left my plan in this respect as it was, keeping to the type of Lanfranc's churches at Caen and Canterbury, of St. Nicholas at Caen, Cérisy, St. Georges de Boscherville, etc. M. du Gard does not mention that traces of the arrangement which he has discovered at Jumièges were found when restoration was in progress at the cathedral of Bayeux.¹

I have placed a spiral staircase in each corner of both transepts. This helps to explain the *cocleis plurimis* of the ancient description, though the words might possibly mean no more than the many windings of a kind of staircase which was new to the writer. But I had other reasons. In the first place I thus got a satisfactory place for St. Paul's altar and the crucifix, to kiss the feet of which the people went up by steps on one side and down on the other side. Moreover, though the transepts have been lengthened and widened, they still have staircases in each of their corners, a remarkable superfluity which is not easily to be paralleled elsewhere. Is this a piece of conservatism in planning on the part of King Henry III.'s builders?

Let us now come to the nave, and consider first its width and then its length. I have made it nearly as wide from wall to wall of the aisles inside as the present nave is, allowing somewhat greater thickness to the Norman walls. It may be said that this does not accord with the measures of the presbytery, and that the presbytery aisles are shown too wide. I may be wrong; but measures which I have quoted in a note at the beginning of my paper incline me to this view, although the nave of Jumièges is narrower.

I have made the nave eight bays in length, four double bays with piers and pillars alternating, as at Jumièges and in several other early churches. The east side of the porch and towers is thus nearly in line with the west side of the western walk of the cloister, as at Jumièges and in St. Stephen's at Caen. This shortening of the nave is contrary to the view of the late Mr. Micklethwaite, who had even surmised that Norman work might still exist in the core of the present western towers. It must be remembered, however, that Mr. Micklethwaite proceeded on the supposition that St. Edward did not complete his church, but left the old Saxon church still standing to serve for the time as the nave. If, as I believe, this supposition is no longer tenable, the

¹ Bouet, *Clochers du diocèse de Bayeux*, 40, where reference is made to *Description des travaux de reprise en sous-œuvre de la cathédrale de Bayeux* par MM. H. de Dion et L. Lasvigne (Paris, Morel et C^{ie}, 1861).

shortening of the nave has two advantages; for it makes it more easy to place its completion within St. Edward's lifetime, and it leaves the more room for the Saxon church between the Norman west front and the Long Ditch, a distance which may be reckoned as from 300 to 350 feet.

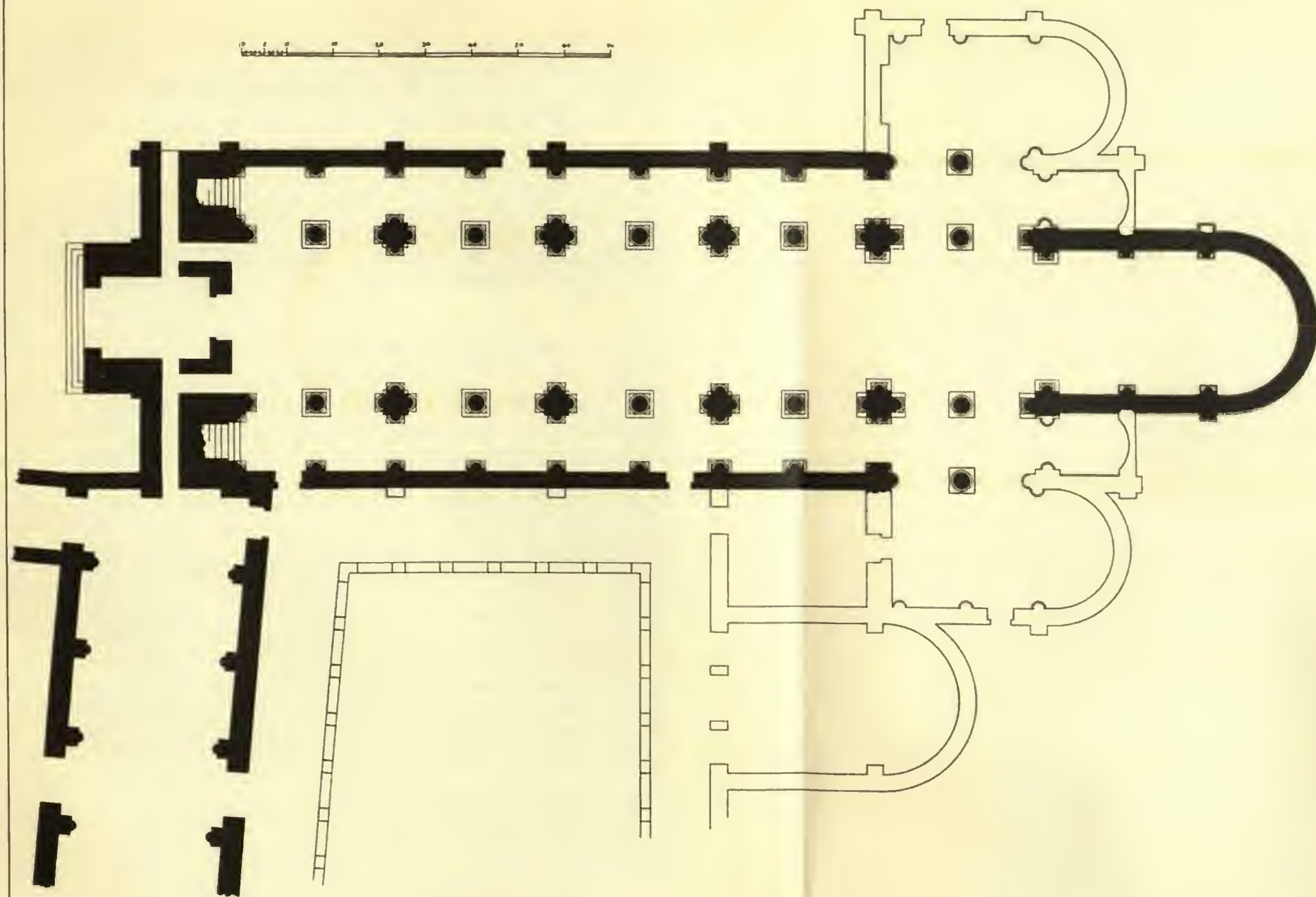
I take this opportunity of calling attention to a set of corbels on the outside of the eastern wall of Jerusalem Chamber, which seem to point to the existence of a covered passage east of that chamber at the end of the fourteenth century, leading from the Abbot's courtyard. These corbels show conclusively that when Jerusalem Chamber was built (1375) the towers did not stand as far west as they do now. This observation, which I made in April, 1909, first shook my faith in Mr. Micklethwaite's opinion as to the position of the Norman towers.

Note on the Plan of the church at Jumièges.

So great appeared to be the importance of Abbot Robert's church at Jumièges in its bearing on St. Edward's church at Westminster, that after a careful study of M. Martin du Gard's valuable book I visited it again in April, 1910. Through the very kind offices of M. du Gard I obtained full leave to photograph and take measurements. Mr. Wallace has drawn for me a plan of the Norman work (plate XV), on a larger scale than M. du Gard's plans, from fresh measurements which he took with the kind assistance of Mr. Gladwyn Turbutt. The outlined portions of this plan represent either parts which have not been measured again or else conjectural reconstructions.

There is a curious irregularity both in the measures of the piers of the nave and in their distances from the pillars next to them. It may also be noted that the bases of the western towers extend slightly further to the east than the eastern face of the great porch. This and some other observations led us to question the theory of the priority of this portion of the church to the nave.

M. Martin du Gard's conjectural restoration of the aisles of the presbytery was the result of excavations and soundings made by him which it was not possible for us to test. It is only with great hesitancy that we have placed the aisle-apses a bay further west than his plans indicate; for indeed the arrangement which he has suggested is the most common in Norman churches of this type. But a difficulty arises from the fact that the moulding of the plinth of the eastern buttress on the south side of the presbytery is continuous, and goes on both east and west on the outside of the wall. This would be right for an external buttress, but seems incompatible with an apse to an aisle at this point.



PLAN OF THE ABBEY CHURCH, ETC. OF JUMIÈGES.

Published by the Society of Antiquaries of London 1851.



We have therefore placed the aisle-apses further west: not with any feeling of certainty, but in order to call attention to the curious problem which this moulding suggests. It is possible that the foundations which were discovered may have belonged to some of the later work: and it is much to be desired that more complete excavations may be undertaken, in order to discover, if possible, what the original arrangement really was.

I am so grateful to M. Martin du Gard, both for his book and also his personal friendliness, that I am very unwilling to appear as his critic: but these observations are necessary in order to explain the very unusual reconstruction suggested by our plan. I am glad to have this opportunity of paying a tribute to the great care and expense bestowed by the present proprietress, Madame Lepel-Cointet, on this precious monument of Norman architecture.

*Note on the existing remnants of the Confessor's Church. By Professor
W. R. LETHABY, F.S.A.*

In 1866 Sir Gilbert Scott discovered the remains of three ancient piers beneath the presbytery floor on the occasion of his laying the marble extensions to the mosaic pavement. He thus referred to them in one of his lectures published in 1879. "We have recently discovered beneath the pavement of the altar-space the bases of two (*sic*) of the great piers of the sanctuary. From which we found that they were clustered, not unlike those of St. Stephen's at Caen. The bases consist of double hollows precisely like one from that church. The work is by no means so rough as that common in early Norman buildings."¹ It seems that Scott meant isolated piers when he spoke of the "great piers", not wall-piers, although at St. Stephen's the piers in a similar position were attached to a wall which enclosed the presbytery. In any case, the remnants do not seem to have been closely scrutinized or planned; for it was not pointed out, that of the two stumps of piers on the north side, the more eastward one had an additional break on its western face, and projected further into the area of the presbytery, so that the clear space between the eastern piers on its opposite sides must have been fully two feet six inches less than the space between the piers further to the west.

Mr. Micklethwaite described the remnants more particularly thus: "They are the inner parts of the bases of the piers which separated the choir from the aisle which went around it. They were left when the rest was hewn away to

¹ The third remnant is only a plinth stone. It is remembered that the fourth, opposite to the eastern one on the north side, was sought for, but nothing was in place.

make room for the foundation of Henry III's work. The piers have been such as we find in other churches built within the eleventh century, as, for example, Blyth, Nottinghamshire, where, as here, we have the square wall-pilaster with a round shaft in front of it and the base mould of the shaft continued along the face of the pilaster, but stopping with the section at its sides."¹ This description was illustrated by a perspective sketch of the west side of the eastern pier which has the extra break, and hence looks more like part of an isolated pier than does the other further west, which consists only of a wall-pilaster with a bold half-round shaft in front. Attention was called to this difference only in these words: "The eastern of the two old bases on the north side, though parallel with the western, is twelve inches nearer to the centre, which is more than could well come from mere irregularity in setting out."

After I had observed the difference between the two piers on the north side it seemed obvious that the one to the east must have been one of the responds to the arch opening to the apse, and a comparison with a series of early Norman plans fully confirmed this view. It was natural at a time when the ambulatory type of plan was better known than that of the closed-in presbytery, and when the general sequence in the development of Norman plans had not been worked out, to assume that the fragments belonged to isolated pillars instead of to wall-piers, yet the fact that just these parts remain which would represent piers attached to walls rather than isolated pillars, goes far to prove that such they were; further an alternation in size in isolated pillars, made up of grouped members, would be very remarkable at so early a date, especially in the short length of a presbytery.

Access to the stumps of masonry is made possible through trap-doors, 18 inches square, but the space round about them is so confined, and the evidence has been so obscured by the new masonry forming the pits and by the concrete filling under Henry III's pavement, that it is, perhaps, impossible to say whether any part of an early side wall still exists. One small point, however, in favour of such a wall, is that a chamfered stone on the eastern side of the west pier is so shallow that it suggests the plinth to a continuous wall rather than a block under a pier. Although the positive evidence is enough to show that the Confessor's presbytery was closed after the second bay by an apse with a continuous wall, it may be allowed that there is not proof, direct and absolute, that the two bays of the presbytery may not have had arches communicating with the lateral aisles, but analogy with a series of plans, generally similar, shows that the side walls of the presbytery were probably solid, as, to take a well-known example, were those at St. Albans.

¹ *The Archaeological Journal*, March, 1894.

The floor of the Confessor's presbytery was about 4 ft. 6 in. below the present high level by the altar, and of the eastern pier three courses of masonry (together 3 ft. 3 in. in height) are left. The masonry is of Reigate stone, accurately worked, and large in scale, the semicircular attached shafts having a diameter of 1 ft. 8½ in. The surface seems to have been covered with lime-wash. The clear space between the plinths of the two piers on the north side is 14 ft. 9 in., and the western or normal pier is 4 ft. wide at the plinth. This suggests a dimension for the ordinary bays of 18 ft. 9 in. from centre to centre. The width of the presbytery between the plinths of the two western piers is about 26 ft. 8 in., and between the plinths of the two eastern ones would have been about 24 ft. 2 in.¹

After the Dean had read his paper I obtained his permission to search for traces of the apse under a piece of modern pavement just to the east of the south door in the reredos. We found that under the pavement of the Confessor's Chapel the ground had been made up for several feet by a filling of stone chips, the waste from a mason's yard. On digging to a depth of 5 ft. 8 in. through this filling, we reached the flat surface of a hard mass following a concave curve tending east and north. We exposed the top surface of this so far as seemed safe, and found that its width extended more than 3 ft. towards the south-east: how much wider it was cannot be said. We now dug deeper along the curved front of this hard mass and found that it was a foundation-wall of concreted rubble largely of flints. The upper surface of what remained was in part covered with broken Roman tiles which may have been laid as a bond course, but not enough tiles were found to make this certain. A total depth of 7 ft. 8 in. was reached, and here we seemed to come to undisturbed sandy loam. This level is 2 ft. 4 in. below the ambulatory floor. The height of the foundation thus exposed was about 2 ft.

On laying down a line for an apse following the measurements taken by the Dean at Jumièges, it was found that this line corresponded with, but was of larger radius than, the curve of the foundation, so that the latter must have projected about 1 ft. 6 in. from the surface of the apse wall.

The foundation was traced for about seven feet, and then it was judged to be inadvisable to mine under the floor any further. The excavation has now been walled round in such a way that the foundation may be examined again at some future time if it is desired, but this cannot easily be done as the pit is covered by a heavy stone.

In digging the hole several large pieces of Roman tiles (bricks) were found, also one fragment of a Roman roof-tile with flanged sides, and some lumps of

¹ Mr. Wallace has kindly given me these dimensions.

a floor of *opus signinum*, that is, of mortar and broken tile, about three inches thick. Other portions of a similar destroyed floor have been discovered before in making excavations in the nave, and it may be put on record here that there is in our collection of fragments part of a Roman flue-tile, $6\frac{1}{2}$ in. wide, and scored in the usual way on the surface thus + and thus × like a Union Jack. It is evident that there must once have been an important Roman building on the site.¹

¹ See vol. i of London in the Victoria County Histories.

VI. *On the Use of the Deer-Horn Pick in the Mining Operations of the Ancients.*
By HORACE W. SANDARS, Esq., F.S.A.

Read 24th February, 1910.

IMPLEMENTS fashioned from the antler of the red deer have long been known to have formed part of the tools with which primitive man and his successors in much more recent times carried on the varied industries that claimed his care and skill, enabling him to turn to good account the many products of soil and chase which thoughtful Nature had placed at his disposal. Almost every part of the antler was utilized; the tines being removed in order to form gouges, punches, hand levers, and piercing instruments, while the beam, when deprived of its tines, was cut up into sections from which adzes and such-like cutting implements were formed, or hammers were devised. A useful instrument which served as a rake, or scraper, was made from the branching points at the cup; while a clever combination of beam and tines produced a tool which served the double purpose of pick (or lever) and rake (or scraper). Much ingenuity was shown in devising and considerable skill in forming such implements, but in no case is this more evident than in that of the deer-horn pick. Generally speaking, the pick was formed from an antler by severing the cup end and removing the bez and the trez tines, thus leaving the beam to form the haft and the brow tine to form the pick (fig. 1), while the burr remained in position in order to give strength to the weakest part, the angle of intersection between the handle and the "blade", and to add weight to the blow. The "false brow", or undeveloped bez, was sometimes left in place (plate XVI, no. 1), but this was rather the exception than the rule. The upper portion of the beam or the longest point beyond the "cup" was often left in position to form an elongation of the shaft which assisted greatly in directing the blow, while it added very materially to the leverage of the pick. Fig. 1 offers a very good example of a double-handed pick with an elongated shaft, and with blunted point and stem worn smooth by usage.



Fig. 1. Deer-horn pick found at Silchester.

Both shed antlers and those from the heads of slain deer were made use of; and although the use of the former may have been the rule, I am inclined to the opinion that the class of antler utilized depended much upon the locality where these tools were made. The antlers of stags of different ages were brought into service, but, generally speaking, those from fully grown animals were preferred. The red deer, the *cervus elaphus* of neolithic and even of much later times, had far finer heads than the red deer of to-day, and some picks, as I will show later on, must have been from antlers of colossal size. Irregular growths of the trez tine were cleverly utilized to form implements which could be adapted to special purposes. Some picks were intended to be used with one hand, while others required two hands to wield them, and others again were specially adapted for usage by both hands in confined and narrow places. Double-handed picks form a special feature of the tools from the flint-mines near Beauvais in France.

Practically all the deer-horn implements which I have mentioned were utilized by miners in ancient times; but especially by miners for flint, as I will proceed to show.

It is only within recent years that attention has been directed to mining operations in the Stone Age, and this probably accounts for the comparative paucity of sources of information on this interesting branch of archaeological study. The countries in which research has been made into this special but important subject are confined, in so far as I am aware, to Belgium, France, England, and the United States of America.¹ I have named them in the order of their importance with regard to the extent of the investigations carried out and of the publication of the results obtained; but I have no doubt that further research would show that many other centres of neolithic mining activity exist, and that there are numerous other sites, even in our own country, where the industry was carried on. Indeed, it is probable that closer investigation will show that the so-called "Dene-holes" were, in many instances, but neolithic flint-mines. There is no proof that flint nodules were mined in paleolithic times, and it is only during the later neolithic period that distinct and incontrovertible evidence of systematic mining operations by primitive man can be found. I use the word "systematic" advisedly, because investigation over a somewhat wide field of research has shown that mining in neolithic times was conducted on the same fundamental principles that regulate similar operations at the present day. The industry may be divided into two main groups, viz. mining by "open cast", and mining by shafts and galleries. There is one other main principle in mining which the ancients followed. They located the "vein"

¹ I make no further reference to the United States as I am not aware that implements of deer-horn have been found in the ancient flint-mines in that country.

"at surface" and followed it down, either as I have already mentioned, by opening trenches on the back of the vein or deposit, or by sinking shafts and driving galleries. They carried into effect the true practice of mining still further, for when sinking their shafts they did so with a definite object in view, viz. to reach a certain bed of flint which gave them the product best adapted to the manufacture of the particular objects to which it was to be applied. They knew beforehand how far they would have to sink, and while sinking they passed through and neglected the several layers of flint which they knew to be inappropriate to their purpose; just as, in our times, a miner for coal would know the depth to which he would have to sink his shaft before he started operations, and would neglect the minor or inferior-quality seams which he might meet on his way before reaching the main seam which it was his primary object to attain.

Perhaps the best example of flint-mining by "open cast" is to be found at Obourg in the province of Hainaut, Belgium, where several of the ancient trenches were examined by M. E. de Munck in 1880-1886 (1).¹ A typical example measured 5 metres (16.4 feet) in length, by 6 metres (19.6 feet) wide at the top, and from 4 to 5 metres (13.1 to 16.4 feet) at the bottom, while the depth was 3 metres (9.8 feet). Some of the trenches reached a depth of 4 metres (13.1 feet) in order to attain, in all probability, a particular layer of flint. They were of considerable length and their preparation must have entailed much labour in the removal of the overburden. The trenches were in close proximity to each other, and in some cases a communication had been established between two "open casts" by means of a gallery or tunnel, in order, most probably, to facilitate the working of the mine and the removal of the silex. In one instance, the tunnel measured 3 metres (10.8 feet) long by 1 metre (3.28 feet) high and 1 metre wide, but the latter measures must have been exceptional as, in another instance, the tunnel was of the more normal height of 70 centimetres (2 feet 9 inches) and 60 centimetres (2 feet) in width. The neolithic miner, like his successor of to-day, only did just sufficient work underground to enable him to get, and often with great discomfort, to where he wanted to go. The trenches had been filled in of old with the débris usual in such cases, viz. with blocks of chalk, sand, and clay (the "spoil" probably from the neighbouring trench), with which were intermingled objects in partly worked flint, bones of animals, much-worn deer-horn picks and other mining implements. The sides of the open casts showed unmistakable traces of the usage of these implements, a large number and a considerable variety of which were also found in the old workings. It is, however, a remarkable fact that mining tools made from flint do not appear to have been used in these mines, as they undoubtedly were in the flint-mines at Spiennes and elsewhere. Among the deer-horn implements found were pickaxes, single-

¹ These numbers, (1), etc., refer to the bibliographical references at the end of this paper.

(fig. 2) and double-handed (fig. 3); rakes (fig. 4); and a combined tool forming a rake at one end and a pick or lever at the other (fig. 5). The neolithic miner



Fig. 2. Single-handed deer-horn pick.

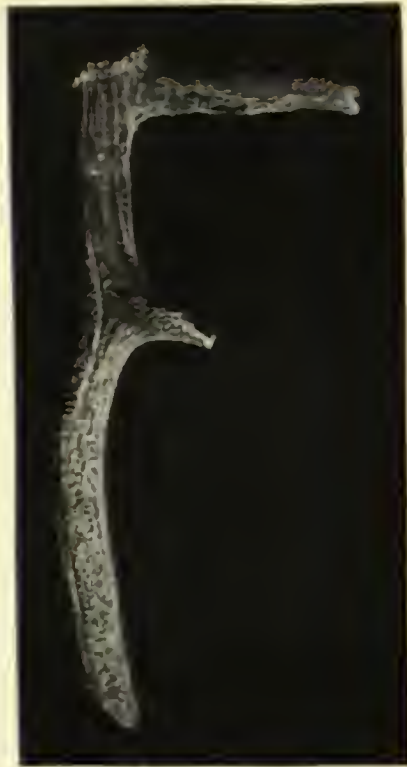


Fig. 3. Double-handed deer-horn pick.



Fig. 4. Deer-horn rake.



Fig. 5. Deer-horn rake and lever combined.

gave a "batter" or slope to the sides of the excavations in which he was working in order to ensure their stability; but that he was not always successful

in achieving his object is shown by the discovery of the skeleton of a miner in the ancient Obourg workings by M. E. de Munck in 1891. He was employed in driving a connecting gallery or "cross-cut", when he cut into a "pocket" of sand, or pot-hole, which "ran in" upon him and buried him with his tools (2). He was using, as was to be expected in view of the confined space in which he was working, a single-handed deer-horn pick, cut from the cup end of an antler which was very flat in the beam. The tines were well developed though somewhat irregular in form. Fig. 6 gives an illustration of this pick, which shows distinct signs of wear. It is possible that the bifurcating points had been left in place (cf. plate XVI, no. 6) and were broken off subsequently to the accident, as a complete implement of that form has been found in other workings at Obourg.



Fig. 6. Deer-horn pick found with the skeleton of a miner at Obourg.

I am indebted to Dr. E. Houzé of Brussels for the following description of this skeleton:

The Obourg man was sub-brachycephalic (c. i. 80.0) and platyrrhine; his stature, estimated from the long bones, was 1.55 m. (5 ft. 1 in.). Viewed in *norma verticalis*, the parietal bosses occupy exactly the same position as in the case of the brachycephals of the series which I examined at Hastière. The femur is platymeric, and has a hypotrochanteric fossa and a third trochanter. The tibia is platynemic and the head is retroverted.

I might mention here that the skeleton of another neolithic miner was discovered at Strépy, in Belgium, in 1905, accompanied by a child of about five years old. In this case the miner was working on a bank of dark flint nodules at the bottom of a trench about 3 metres (10 feet) deep, when the side gave way and buried the victims (2). A fine single-handed deer-horn pick still lay close to the miner's hand; and another deer-horn implement, probably used for levering up the nodules, was found close by; while a very good specimen of a two-handed pick, which the miner had evidently used, was discovered in another part of the trench. The bank of flint mined was the fourth from the surface, and the last in the chalk of the district. In this instance the cranium was decidedly brachycephalic, the lower jaws were powerful, and the teeth were worn to a flat surface, a characteristic of the neolithic populations of that part of Belgium. Some of the teeth had been destroyed by disease, which had even extended to and affected the bone of the lower jaw.¹

¹ These skeletons and the implements found with them are to be seen at the Natural History Museum in Brussels.

As was usual in such cases the mining activity at Obourg was accompanied by a separate industry, which consisted in working up the flint nodules at surface into different forms, and manufacturing therefrom the varied weapons and implements which are characteristic of the neolithic period; and traces of many of the sites of such "factories" have been found in the neighbourhood of neolithic mines. They afford at Obourg a very good example of the directness of purpose in the mining operations of the ancients, since it is evident that the bank of silex mined produced a flint peculiarly adapted to the manufacture of fine and long knives and of scrapers, but not to other implements, such as axes, etc. Indeed, one of the few polished axes found here proved to have been manufactured of flint from Spiennes (1, p. 349).

It is to Spiennes that we must turn for the best-known examples of neolithic mining, which have been so carefully examined and so often published that they may be said to have become historic. These mines were first noticed by M. C. Malaise (4 and 7) in 1866, who mentions that they were discovered while the very same bank of silex which was utilized by neolithic miners was being worked for the supply of a neighbouring pottery. The old galleries produced a large quantity of partly worked flints, as well as a deer-horn pick and parts of a human skeleton. It was only in 1867, however, at the time of the construction of the railway from Mons to Charleroi, that the neolithic mining district of Spiennes could be carefully studied and reported upon. This was done by MM. Cornet and Briard (5), and they were followed in 1887 by MM. Baron de Loë and E. de Munck, who again examined the field (6).

Neolithic mining was carried on at Spiennes by two distinct methods, viz. by means of galleries driven in from the sloping surface of the ground where it falls away to the river Trouille (10), and by shafts sunk from the surface of the plateau above (6). The galleries were driven in the chalk and on the upper surface of the bank of flints which formed the objective of these ancient mining operations, and outcropped on the side of the hill. They yielded the usual evidence of the period of their construction and the purpose for which they were made in the form of partly worked flints and of deer-horn picks. It is possible, and indeed probable, as MM. de Pauw and Van Overloop have mentioned, that these galleries indicate an earlier period in the development of the flint-implement industry than the shaft mines in the same district; and I venture the opinion that the proofs of age, when considered from a purely mining point of view, and as deduced from the evidence of the methods pursued, point to the conclusion that the open casts at Obourg preceded the galleries at Spiennes, and that it was only in later neolithic times that experience in mining and the knowledge of the conditions under which it could best be undertaken and safely carried on, led to the more scientific methods of sinking by shafts and of extend-

ing in all directions the underground workings. The shafts at Spiennes are scattered over a surface of more than sixty acres, almost entirely covered with the débris of the neolithic workshops, which is three feet deep in places. It has so rarely happened that such a large number of shafts has been disclosed in so relatively small a space that I reproduce in fig. 7 a section of the railway

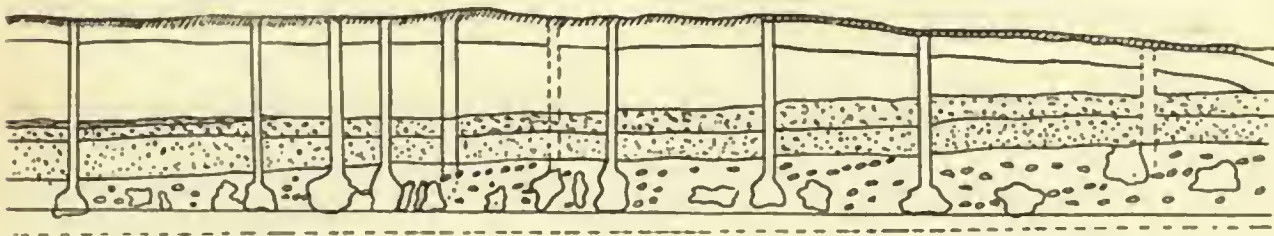


Fig. 7. Section of the eastern portion of the railway cutting at Spiennes, showing the position of the shafts and galleries. Scale, 1-500.

cutting at Spiennes, taken from the *Compte rendu* of the Congrès international d'Anthropologie et d'Archéologie préhistoriques, 6^e session, Brussels, 1892. This shows ten shafts, almost in line, and the galleries with which they were connected. The object in sinking these shafts was to attain the sixth layer of flint in the underlying cretaceous deposit, and the neolithic prospector proceeded on his task in a miner-like and eminently practical manner. He was quite well aware, from the evidence afforded by the old adit workings, that he would have to go down to the sixth layer of silex, which alone offered those properties of cleavage and qualities of texture which permitted of its being worked to good purpose after it had been won. He also knew that in order to reach that bank he would have to sink through a considerable depth of overburden, composed of quaternary and tertiary deposits, before he could expect to reach the chalk; and that his labour would not even then be finished, as he would have to continue to sink through harder material and through several layers of flint before he could reach his final goal. As a matter of fact he sank his shaft through

- 1.50 m. (5 feet) of alluvial deposits.
- 4.00 „ (13 „) „ quaternary gravels.
- 1.50 „ (5 „) „ a deposit of water-worn pebbles and débris, in which the remains of the mammoth and of the rhinoceros, as well as paleolithic implements, are found.
- 2.50 „ (8 „) „ tertiary greensand before reaching the chalk (5, p. 290).
- 9.50 „ (31 „).

At another spot in the neighbourhood the neolithic miner went through more than 10 metres (32.8 feet) of quaternary deposit before reaching the bank of flint

he was sinking for, which lay in this case on the top of the chalk, and the existence of which could not even be suspected at surface.

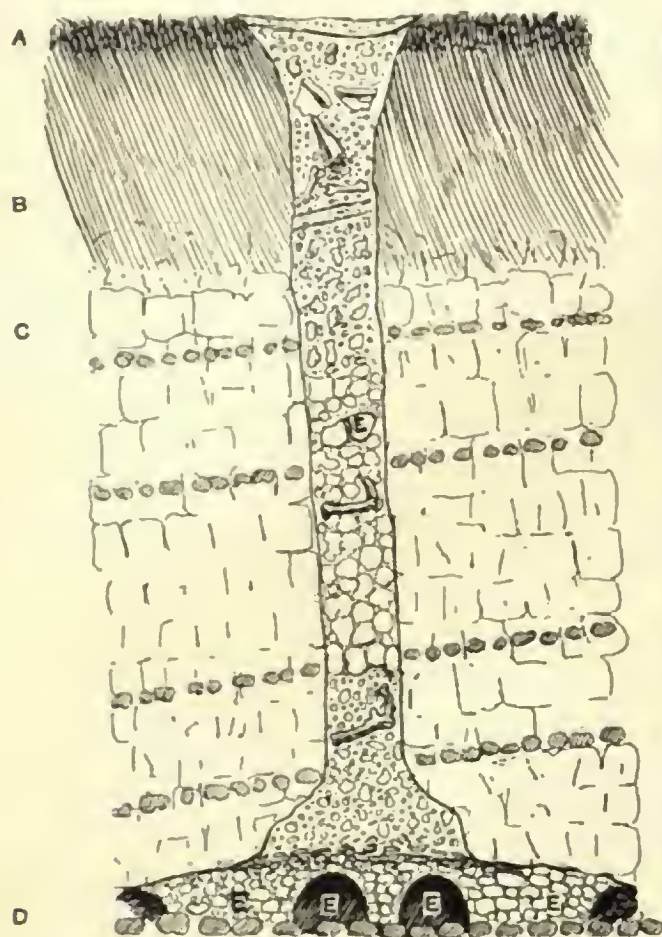


Fig. 8. Section of a neolithic shaft. Scale, 1-10.

would be continued until the fifth layer of flint (D) was reached at some 12 metres (about 40 feet) from surface. Here the exploitation, properly so called, of the mine would begin, the first operation being to widen out the bottom of the shaft so as to form a chamber E, about 1.20 to 1.50 metres (4 to 5 feet) high and about 2.50 to 3 metres (6.5 to 10 feet) in diameter. It is from this chamber that the different galleries or workings radiated. The orifice of the shaft was also widened out to about 2 metres (6.5 feet) and the sides, for a short distance down, were given a batter in order to facilitate work at the top of the shaft and to lessen the risk of the ground becoming detached and falling on the men below.

The sides of the shaft were not always parallel nor were they always vertical, but it is indeed remarkable how even and straight they were frequently made. The neolithic miner who was occupied in shaft-sinking worked in a very confined

Fig. 8 represents a typical shaft as sunk under the conditions that prevailed in Belgium and elsewhere on the Continent, and in accordance with the mining principles of later neolithic times. The practice in Britain, as I will show later on, appears to have differed in detail, and points, I think, to somewhat less advanced methods of mining. The usual procedure was as follows: operations were commenced, at a convenient point at surface, by making an excavation as nearly circular as possible, about 80 centimetres (32 inches) to 1 metre (39 inches) in diameter, through the surface soil (A), which is supposed to be 50 centimetres (20 inches) deep, and then through three metres (9.8 feet) (B) of loam and clay until the chalk (C) was reached. At this point the work would become harder and care would have to be exercised when the layers of flint were passed through to prevent the nodules from subsequently becoming loosened and falling down the shaft; but sinking

space, sometimes not more than 60 centimetres or 80 centimetres in width (about 24 or 32 inches) (5); and that he went down to nearly 12 metres (40 feet) under

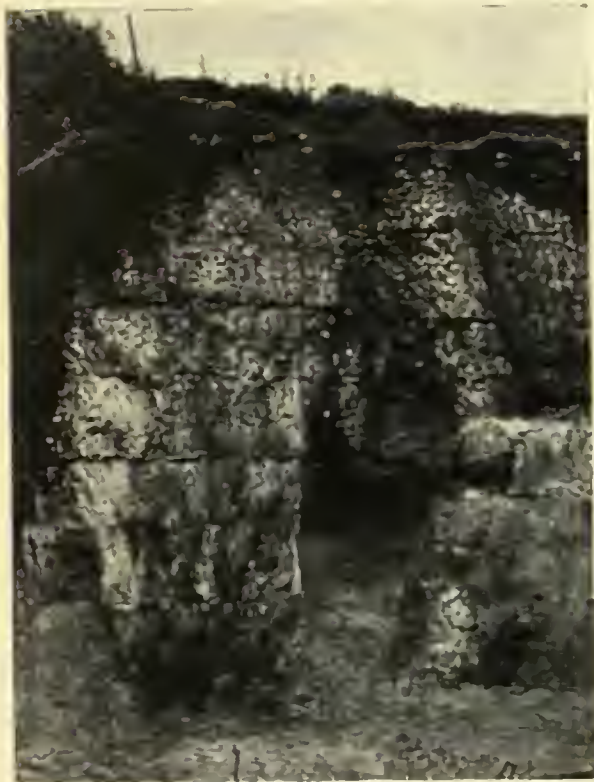


Fig. 9. Neolithic flint-mines at Champignolles.



Fig. 10. Continuation of fig. 9.

such conditions speaks well for his skill as a craftsman. Fig. 9 shows, in a photograph which I took in July 1909, the section of a vertical shaft at Champignolles (11) near Sérifontaine in the Département de l'Oise in France, with the chamber at its base. The depth of the shaft was in this instance about 565 m. (185 feet). The different banks of flint through which the miner passed before reaching the workable deposit can be distinctly seen.

Fig. 10, from a photograph taken in close proximity to the shaft in fig. 9, shows the quaternary deposit of loam mingled with fragments of flint through which the miner would, in places, have to pass while shaft-sinking before he could reach the chalk which held the nodules he was making for.

Generally speaking the form of the neolithic shaft and chamber may be compared to that of a bottle with a long neck, or to a Roman glass *unguentarium* (fig. 11) (12). The chamber at the bottom of the shaft has been a puzzle to many, but its purpose can be easily explained. It was



Fig. 11. *Unguentarium* representing the form of the section of a neolithic shaft.

excavated in order to give room for developing the mine and to enable several miners to work simultaneously (13) on the bank of flint, whereas one man only could work in the shaft; and a space was required to permit of their dealing with the chalk excavated from the galleries and for handling the nodules and sending them up to the surface. The deer-horn pick was certainly used for shaft-sinking as well as other tools. At Spiennes and Champignolles, flint implements in the form of picks (fig. 12) were also employed, both for sinking and for dressing or removing asperities from the sides of the shaft (6, p. 4), a thoroughly miner-like proceeding. These picks were either hafted into a deer-horn handle, or used in the hand after the sharp edges had been removed. But the real



Fig. 12. Flint picks from Spiennes.

work in the mine was carried on by means of the galleries which radiated from the central chamber. These were at times as many as six or seven in number (14), and in them as many miners could work concurrently if desired. The galleries were usually about 60 to 80 centimetres high (24 to 32 inches), and of about the same width when driven in a definite direction with the object of reaching a new field of operations or of communicating with a neighbouring shaft. In other words, they were just and only just large enough to permit of a miner working within them. The neolithic miner wasted no time or energy in doing more than the minimum amount of work necessary to enable him to attain the object he had in view; just as the Roman miner did, and the miner who followed him; and just as his congener of to-day would do and does when left to his own devices. The galleries were usually driven in chalk or solid ground, while the "sole" or floor was formed by the bed of flints to be worked; and they gradually opened out in width so

as to offer a wider field of operations, care being taken to leave a barrier or wall of chalk between the galleries and workings so as to serve as a support for the roof. Sometimes, however, the galleries were driven "into the country", and working chambers were opened out from them on either side. Fig. 13 gives a diagrammatical illustration of the ground plan of a neolithic flint-mine, showing the converging and diverging galleries, and the different forms they took. It has been composed partly from personal observation of ancient workings, and partly, indeed mostly, from illustrations in various works which deal with this special subject. The figures refer to the sources that have been drawn upon for the illus-



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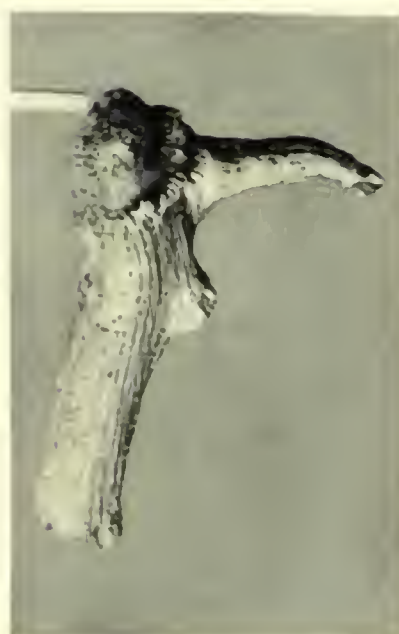
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DEER-HORN PICKS FROM FLINT-MINES

1. From Grimes Graves, Weeting, Norfolk.
- 2, 3, 4. Obourg, Belgium. Musée Royal d'Histoire Naturelle, Brussels.
5. Spiennes, Belgium. Musées Royaux du Cinquantenaire, Brussels.
- 6, 7, 8. Champignolles, near Sérifontaine, Oise, France. Collection of Dr. Bandon, Député de l'Oise, Beauvais.

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tration, while "S" = a shaft, "P" = a pit, and "W" = the so-called "windows" or ventilating openings.

It is in these galleries and old workings that the greater part of the mining tools are found. They are of more different kinds and more varied in form than the implements found in the shafts, but the deer-horn pick always predominates as the tool *par excellence* of the neolithic miner; and several of these are illustrated on plate XVI.

No. 1 is a very fine specimen from Grimes Graves. No. 2 is from Obourg. In this instance the *trez tine* has been utilized, and the "scars" left by the flint-saw used for severing the beam can be distinctly seen. No. 3, from Obourg in Belgium, is a remarkable specimen, in that it is formed of the cup and points from the upper part of a gigantic antler and that the lower point has been "bevelled" so as to form a chisel or cutting edge. No. 4 is a heavy pick from Obourg. No. 5 is an exceptionally fine example from Spiennes in Belgium, made from the antler of a slain stag. The back of the implement has been used, at the burr end, as a hammer. Such was also the case with another specimen from Grimes Graves, as can distinctly be seen in fig. 15. Nos. 6, 7, and 8 are from Champignolles in France. No. 6, again, has been formed from the cup end of an antler, and shows traces of long usage at the point. The terminating tines were probably utilized as a hoe or rake, or as a lever for dislodging the nodules of flint in the mine. In nos. 7 and 8, which were both cut from the top of an antler, the end of the shaft or uppermost point was left in position, as frequently happened at Champignolles, thus rendering the pick an exceptionally useful double-handed implement, as I have already explained. Speaking generally, the deer-horn picks found in neolithic workings were abandoned because they were worn out, and in many cases the effects of long usage can be distinctly seen on

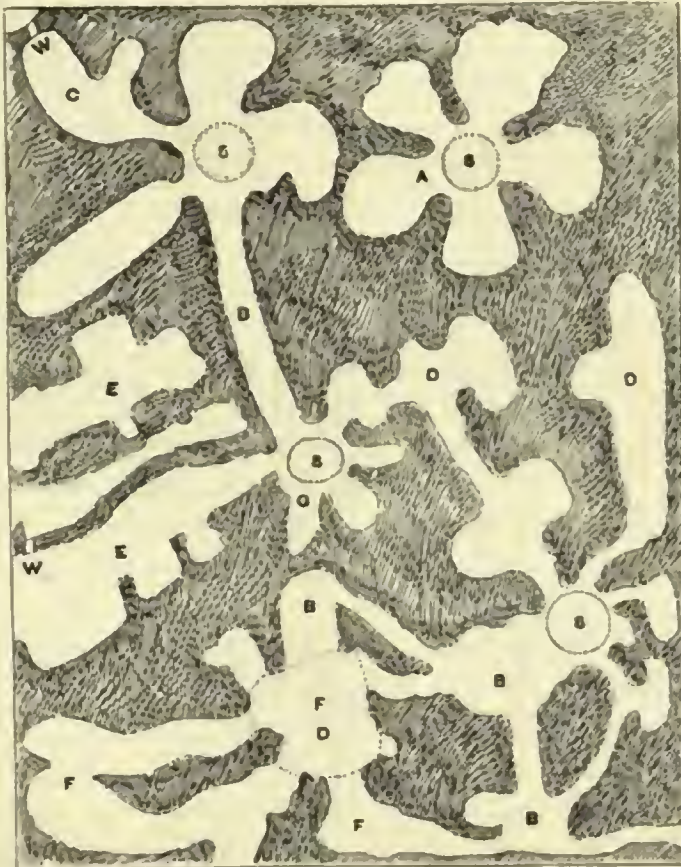
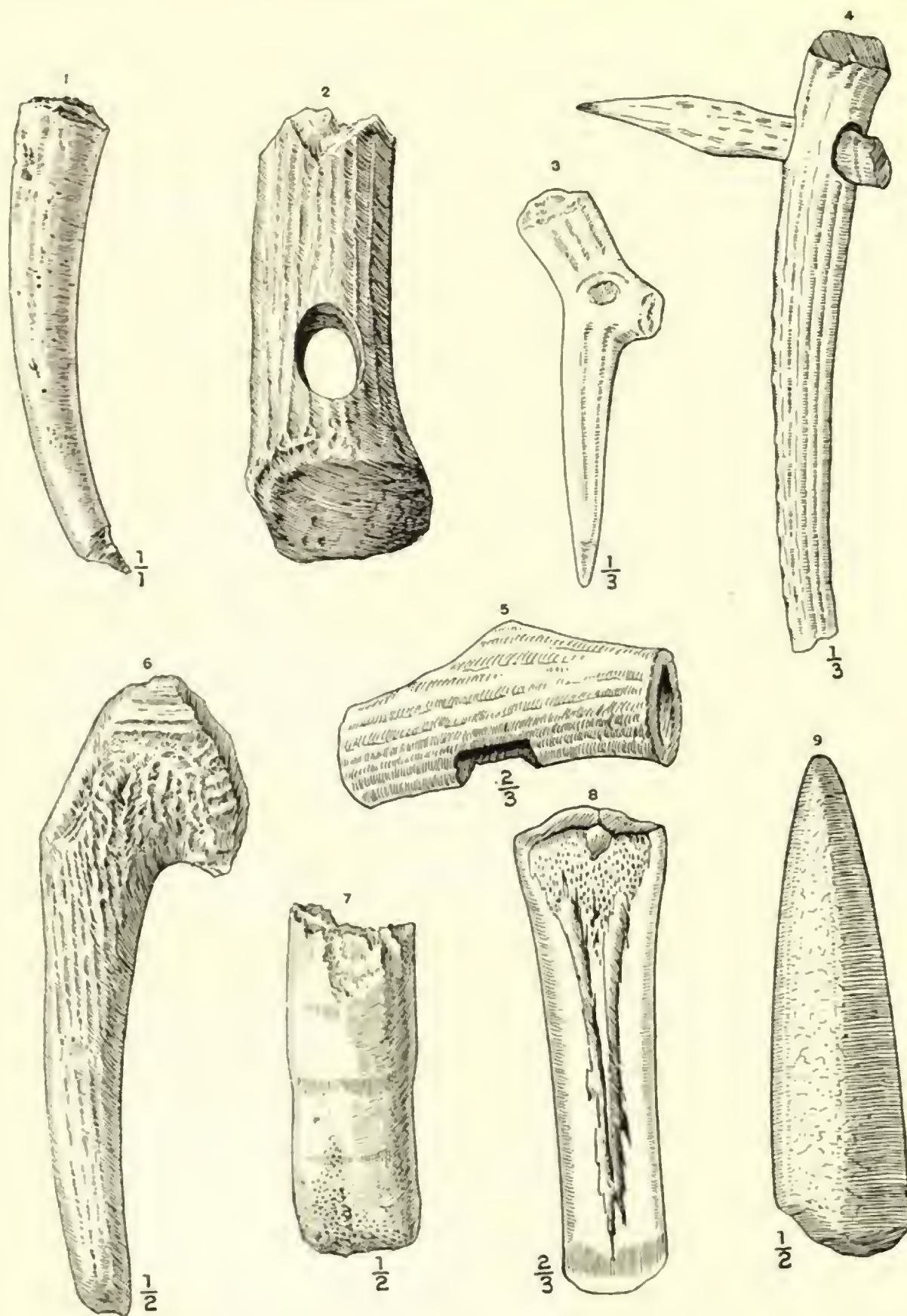


Fig. 13. Ground plan of neolithic mines.
A = Puits préhistoriques de Nointel (16). B = Grimes Graves (13). C, D, E, F = Cissbury Camp (17, 18, and 19). G = Puits de Valennes (15). S = shaft. W = window.

the shaft, worn smooth by friction in the hands of the miner. In the galleries and chambers other tools than the deer-horn pick were used to loosen the blocks of chalk, to dislodge the nodules of flint, to free them from the gangue, and to break them into smaller and more serviceable sizes, and even to dress them into rough-shaped implements before sending them up to the surface. Several of these tools, which were varied in form to suit the many purposes to which they were applied, are illustrated on plate XVII, while all were made from the antler of the red deer or animal bones except no. 9. No. 1 was made from a tine, and was used as a wedge and for loosening the layers of chalk and separating the blocks of flint from the bed. No. 4, made from part of the beam of an antler with a tine inserted transversely to form the pick, was used for driving the gallery in confined spaces and for picking out the nodules from the bed. No. 2 was a hammer used for driving in the tine wedges to loosen the blocks of chalk or flint, while no. 3 may have been used for levering them out; no. 5, from an antler, probably served as a haft for a flint-mining implement. No. 6 was used as a hammer for loosening the gangue from the nodules and for breaking them up. Nos. 7 and 8, made from the metacarpal bones of a horse, may have been employed as wedges for loosening the chalk or for fashioning flint implements. No. 9 is a remarkable tool. It is a stone hatchet of basalt found by the Rev. W. Greenwell in Grimes Graves, "and the marks of its cutting-edge were plentiful on the chalk sides of the gallery in which it was discovered" (13). A similar implement (a polished stone axe of andesite) has been found in the neolithic flint-mines at Mur du Barrez in France (32).

I have already referred to the method employed in opening up a neolithic mine by means of galleries or chambers radiating from, or connected with, a central chamber at the bottom of a shaft. The different workings were separated, as I have already pointed out, by walls of undisturbed chalk of irregular shape and varying thicknesses, with the object of sustaining the roof, and so preventing the collapse of the galleries, etc.; but the neolithic miner knew full well that such precautions might eventually not prove to be sufficient, and he was wont to make his mine still safer by filling up the galleries with chalk and débris brought from the neighbouring workings, just as a modern miner fills the "stopes" or working chambers with mine-rubble to-day (21, 13). The filling in many instances consisted largely of flint chips and of partially worked flint implements, proving that a certain amount of preparatory or fashioning work was done underground. Many used and discarded mining tools have been found intermingled with the fillings. The shafts were treated in the same way, although, in all probability, not altogether for the same reason. They were filled with rubble and débris extracted from the neighbouring shafts, often in the order in which they were extracted (21), a very practical and simple method of disposing



NEOLITHIC MINING IMPLEMENTS

Nos. 1, 6, 7. Cissbury, Sussex (17)
Nos. 5 & 8. Mesvin, Belgium (20)

Nos. 2, 3, 4. Nointel, Département de l'Oise, France (16)
No. 9. Grimes Graves, Norfolk (13)

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of the waste from other mines. Deer-horn picks showing signs of wear have often been found among the shaft fillings, which not infrequently comprise flint chips and wasters from the adjacent factory as well, also the bones of animals and pieces of broken pottery and other rubbish from the neighbouring mining settlement. I have endeavoured to show the normal character of the filling of a shaft in fig. 8, based, in this instance again, on the results of investigations carried out in different parts of Europe.

Another form of mine implement has been found in Britain, viz. the scapula of the *bos longifrons*, which was evidently used as a shovel for clearing away the chalk loosened from the galleries or for filling baskets with flint nodules or fragments. Some doubt has been expressed as to whether scapulae were employed for such purposes, but further and convincing proof of such usage has recently been afforded by the investigations carried out by Mr. H. St. George Gray at Avebury, where similar implements in association with deer-horn picks have been found at the bottom of the deep ditch that surrounded the monument.

Another tool of a special character has been discovered in the flint-mines at Champignolles (11) in France in association with deer-horn picks. It is in the form of a hatchet, being probably hafted, and would prove to be a very efficient tool for driving a gallery in the chalk.



Fig. 14. Flint-mining implements from Champignolles.¹

It is the middle object in fig. 14, while to the left is a flint pick, which would also in all probability be hafted, and on the right a pick to be used in the hand, the "asperities having been removed by hammering so that the elongated portion formed a (convenient) shaft or handle" (22). These picks were used for dressing down the sides of the shafts and galleries, as I have already pointed out, as well as for separating the flint nodules from the chalk or gangue. A similar hatchet was found at Grimes Graves, and is now in the British Museum.

The method employed by the neolithic miner for drawing the flint and "rock" to the surface has not been clearly determined. It is possible that in the wider pits or shafts which appear to have been the practice in Britain the "stuff" may have been thrown up from ledge to ledge, but this could not have been so in the case of narrow shafts, and there is no doubt that a cord made of

¹ From the collection of Dr. Baudon, Député de l'Oise, Beauvais, France.

fibre or grass, such as is used in Spain to-day, was employed for raising material from the bottom of the pits. Indeed, distinct traces of such usage have been discovered at Spiennes in Belgium (6), where an "enormous block of chalk", with two lateral grooves for the attachment of the cord, was found in the filling of a shaft.

Neither have the methods employed by the flint-miner for descending and ascending the shafts been satisfactorily demonstrated. It may be assumed that in the larger pits in Britain, and where there were stages, the miner would hoist himself from step to step by means of a rope; but this, again, could not have been the case in the deep and narrow shafts of the Continent. He could only, in such instances, have clambered up a rope or been hauled up to the surface.

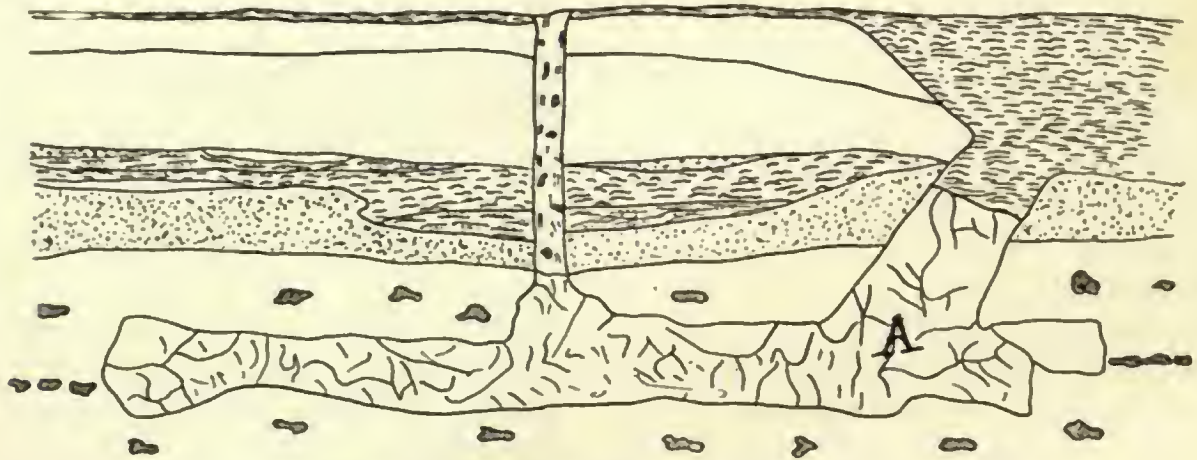


Fig. 15. Section of ancient mines at Spiennes.

Footholds on the sides of the shaft would have greatly aided the operation, and, indeed, have obviated the use of a rope; but they do not appear to have been observed in any instance that I am aware of. There was, however, another very simple means of ingress and egress which would, in all probability, be employed in some districts (namely, by means of inclined, as opposed to vertical shafts), such as those that have been found at Champignolles in the Département de l'Oise in France, and of which there is a well-known instance at Spiennes in Belgium. The above illustration (fig. 15), taken from the report of the Congrès international d'Anthropologie et d'Archéologie préhistoriques, 1868 (5), shows, to the right of the vertical shaft, a much wider approach to the mine, amounting almost to an inclined plane; and as many of the underground workings were connected, the miners would have had no difficulty in making their way to A and using the shaft for entering or leaving the mine.

The method employed in lighting the flint-mines has given rise to much controversy, and opinions have been expressed that artificial light was not employed, but this would only have been the case in exceptional instances where

the workings were restricted in extent and in close proximity to a very large shaft or pit.

The galleries and chambers were in most cases too far removed from the shafts and too extensive to admit of the penetration of the light of day through the opening of the shaft above, and some form of artificial illuminant must have been employed. It may have taken the form of resinous torches, as was the case in Spain in a more recent phase of mining with the deer-horn pick, as I will show later on; or of cups or lamps made of chalk, which were filled with grease and furnished with a wick. I know of no case where the remains of torches have been found in flint-mines, but it is otherwise with the lamp, and we owe it to that careful investigator and conscientious recorder of facts, Dr. Greenwell, that there is at any rate one well-authenticated instance of a neolithic lamp having been found in position. Four such lamps were discovered during his investigations at Grimes Graves, "one in a pit, and others in the galleries, in one case placed upon a ledge of chalk just in the proper position for throwing light upon the place being worked" (13). There is, moreover, another reason why artificial light must have been used in these often deep and extensive mines. As I have already mentioned, the shafts were sunk to the top of a bed of flints, and there the workings began. The miner worked the bed that was under his feet, or, to use a mining expression, in the "sole" of his level, and in some cases, as at Spiennes for instance, the bed has been found to be 50 centimetres (20 inches) deep (6). Care was necessary to remove the nodules properly, and this could not have been done in darkness or in semi-darkness.

The number and the close proximity of the shafts in a flint mining-field has often been a matter of surprise and wonder to investigators, but in this instance again the neolithic miner worked methodically and with a thorough knowledge of his trade; for numerous shafts, although representing a considerable amount of "dead-work", greatly facilitated the development of the mines by providing ventilation for the workings, by extending the field of underground operations, and by expediting the delivery of the production to surface. Even in much later periods the sinking of multiple shafts was one of the features of practical mining, and it may indeed be said to have been a common practice in Roman times, while, in our own days, miners have a tendency to multiply shafts where scientific practices do not prevail. There are indeed instances where they deliberately do so even to-day, as the following extract from the Rev. J.W. Hayes's very interesting monograph on Dene-holes (23, p. 64) will show. Mr. Hayes quotes Mr. Darwin's report, which is directly based upon Mr. Charles Dawson's study on "Ancient and Modern Dene-holes and their makers" published in the *Geographical Magazine* in 1898:

The whole of this area (Brightling in Sussex) is covered with countless thousands of pits. . . . The workmen who with their forefathers have been accustomed to this industry

(procuring limestone) perform the work with wonderful celerity. They sink a well 3 or 4 feet in diameter through blue and brown shales until limestone, 40 sometimes 50 or 60 feet from the surface, is reached. The cavity above the stone is then belled out, and four small arched lateral chambers are dug out at four equidistant points. . . . While the last pieces of stone are being removed from the pit, one of the men commences another shaft about 6 yards away . . . this way occupies less time (than mining), is less expensive, and the men work on the same general design because they know by experience that it is a safe one. Indeed, the whole operation of digging a well and getting out the stone is only a matter of a few days, and then they fill one pit with the *débris* of another.

The close analogy between the methods of mining as practised to-day by the searcher for limestone and those of the neolithic flint-miner of several millenniums ago is indeed remarkable.

I have thus far referred to the use of the deer-horn pick in mining operations on the Continent, where researches in the interesting field of neolithic mining have been pursued more extensively and actively than in England; but all the evidence forthcoming points to its having also been the principal implement employed in excavating shafts and driving galleries in the flint-mines of Britain. The best known neolithic flint-mines in England are those at Grimes Graves near Weeting in Norfolk and at Cissbury in Sussex; the former of which were investigated by Dr. Greenwell in 1869, and the latter by Mr. E. H. Willett, Col. Lane Fox, and others in 1873-7. A considerable number of deer-horn picks and other tools, similar to those which were in use on the Continent, were found in both places, Dr. Greenwell having discovered no less than seventy-nine of such picks in the restricted area which he investigated (13). There is, however, one feature which distinguishes the flint-mines in Britain from those in Gaul, viz. the greater dimensions of the shafts. At Cissbury the shaft cleared out by Mr. Willett measured nearly 19 feet at the mouth and $12\frac{1}{2}$ feet at a depth of 15 feet, while the shafts or pits at Grimes Graves are described as circular and varying in diameter from 20 to 65 feet. The pit opened was "rather under the medium size, being 28 feet (about 9 metres) in diameter at the mouth, and gradually narrowing to a width of 12 feet at the bottom, which is 39 feet below the surface" (13, p. 423). It is difficult to account for the size of the shafts in Britain. They would offer the advantage of better ventilation, and more light would reach the lower working through them, but, on the other hand, they represented a much larger amount of "dead-work" than the narrower shafts in Gaul, and the only logical inference to be made from them is that the art of mining in neolithic times was less advanced in this country than it was in many places on the other side of the Channel. Dr. Greenwell states, as the result of his careful observations, that (13, p. 426) "the principal instrument used both in sinking the shaft and in working the galleries was a pick made from

the antler of the red deer, numerous examples of which were found in the shaft at various depths and in the galleries". It was at the end of a gallery, 20 feet 8 inches from its mouth, that Dr. Greenwell found two picks in the position in which they had been left by the ancient flint-miners, in front of two hollows extending beyond the chalk face of the end of the gallery. Fig. 16 represents one of these very picks, which is not only interesting from its associations but also from the fact that it bears unmistakable evidence at the back of the burr of use as a hammer.

But although there was a marked difference between the methods of shaft-sinking in the neolithic flint-mines in Britain and in Gaul, there were remarkable points of similarity in other respects, and in none more so, perhaps, than in the provision of a small pit or trench in the chalk at the bottom of the shaft, such as has been observed at Cissbury and was the rule at Champignolles in France. It is difficult to conjecture its use, as Mr. Willett points out (14), but it is possible that it may have served to collect the rain water which must have found its way into the shaft, especially when the workings were situated on the side of a declivity.

I have so far dealt with the use of the deer-horn pick in connexion with neolithic flint-mining, and in no instance has any object of bronze been found in the working or fillings of galleries or shafts. That the mines were in exploitation during different phases of the neolithic period is probable, as I have already pointed out when comparing the workings at Spiennes and at Obourg in Belgium, and as M. Rutot so ably demonstrates (22) in his study of the same districts, when he compares the fauna found in the workings, and shows that those at Obourg were "wild" (*une faune sauvage*), while those at Spiennes were domestic (*des espèces domestiques*), and as Mr. Willett considers to have been the case in the Cissbury and Grimes Graves mines (14). But be that as it may, the mines and the picks were undoubtedly of the Stone Age.

The employment of the deer-horn pick was, however, not confined to mining for flint. It was also employed, as I will show, in prehistoric calcite, copper, salt, and tin mining.

It has been found at Furfooz in the province of Namur in Belgium in old workings from which calcite had been obtained for the purpose, principally, of



Fig. 16. Deer-horn pick from Grimes Graves.

mixing it with the clay employed in the neighbourhood in the manufacture of pottery. Two parallel veins of calcium carbonate were worked by the open-cast method, and from the calcite extracted the most suitable portions were selected and then broken up by hammering with a deer-horn implement, or with stone

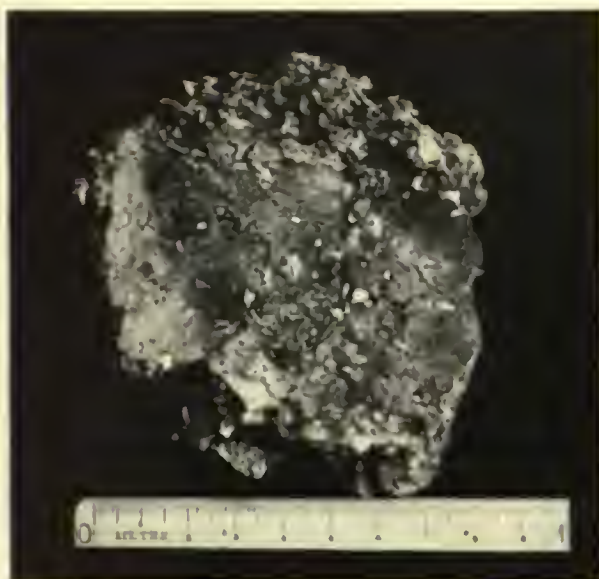


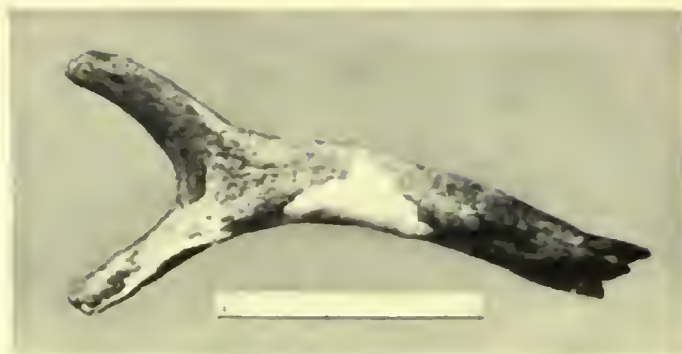
Fig. 17. Pottery showing fragments of calcite.

mauls, to the size required for admixture with the clay. The pottery (fig. 17) was very coarse in texture and simple in form. In some of the fragments found, there were the distinct impressions of grains of barley. The tools which were found associated with the deer-horn pick in flint-mining, such as the rake, the hammer, and the wedge, have also been found at Furfooz, and are illustrated on plate XVIII. No. 1 is a pick, no. 2 a rake, and nos. 3 and 4 show distinct traces of having been used as mallets for breaking up the lumps of calcite; while no. 6 was employed as a wedge or gad for levering them out of the vein.

The example of the use of the deer-horn pick in connexion with mining for tin occurs in our own country, where a fine and interesting specimen was discovered, about 100 years ago, at Carnon in Cornwall, some "30 or 40 feet below the surface, lying on the tin-bearing stratum (of the stream tin) associated with human skulls, deer horns, and a wooden shovel". The "deer horns" were probably the usual gads or wedges, and the association of the pick with those implements would point to their having been employed in mining operations, although the presence of human skulls is somewhat difficult to explain. The pick differs in construction from any which I have hitherto described, since it is composed of two portions instead of being all of a piece as in all other cases. The beam, which apparently formed part of a shed antler, was stripped of all its tines and then perforated at the base just above the burr, and through the perforation a tine or small antler was inserted and probably fixed in place by a cord, thus forming, with its haft and blade, a true pick as we understand the implement in our days. Mr. R. N. Worth (34), who describes this pick, attributes the [tin] mining operation in Cornwall to the earliest days of the European bronze period, but it is quite possible that this tool may have been employed after the neolithic and during the bronze period. A mining tool constructed on similar lines, which was found at Nointel in France, is illustrated on plate XVII, no. 4.



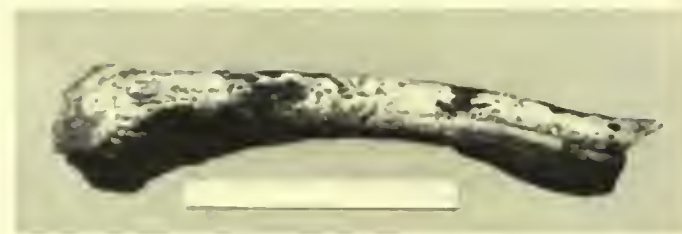
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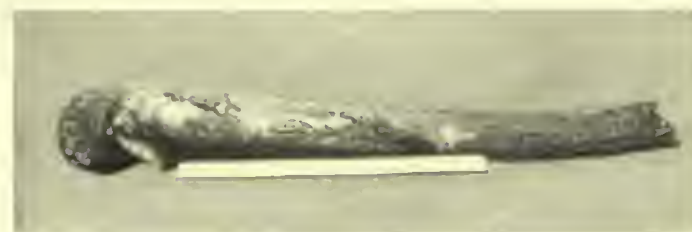
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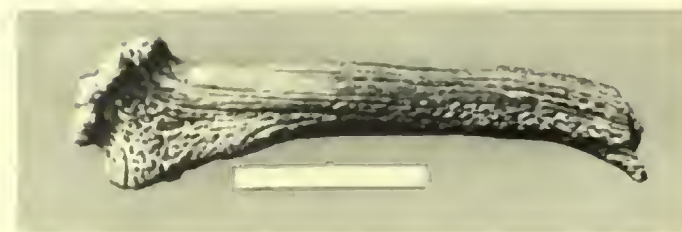
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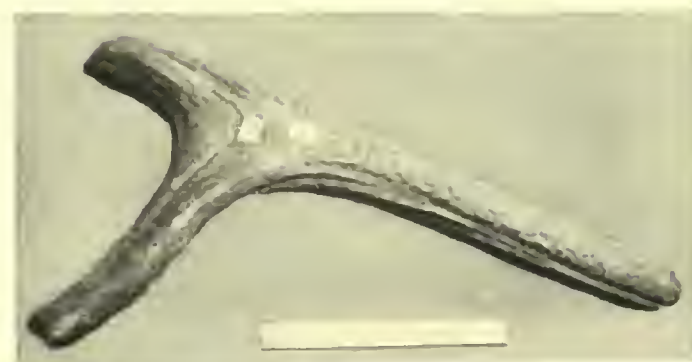
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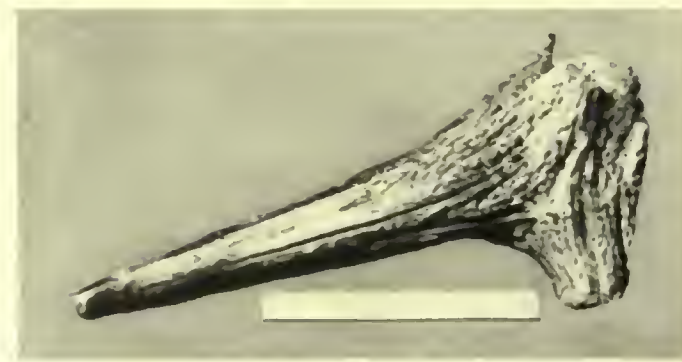
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DEER-HORN TOOLS FROM MINES IN BELGIUM, SPAIN, AND SALZBERG NEAR HALLSTATT

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The next phase of the use of the deer-horn pick came to light in connexion with very early and undoubtedly prehistoric copper (or possibly cobalt) mining in northern Spain. A fortunate though logical deduction from a casually observed freak of nature led to the discovery of an ancient mine in September, 1888 (24). Mr. Van Straalen, the manager of the neighbouring mines of Mieres, in the Aramo range of mountains in the province of Oviedo in the north of Spain, noticing that the leaves of a tree were violently agitated on a day when there was no wind or movement of the atmosphere, investigated the cause, and found it in a current of air which proceeded from an "Old man's" shaft; and further research led to the discovery of most interesting old workings, consisting of a number of small vertical shafts, leading to a series of galleries of considerable extent in which pillars had been left, as in true mining practice, to support the roof. The several veins of copper ore, in a dolomite formation, had been followed by the prehistoric miner, who left on the walls of his galleries and in the filling of his workings unmistakable evidence of the implements he used and the methods he employed in mining the precious metal. His attention was, in all probability, first attracted by native copper, or by rich nodules of black oxide of copper (containing perhaps 72 per cent. of metal) in the outcrop of the vein, which he followed down and worked in a miner-like manner. He was not, however, always fortunate in his precautions for preventing accidents, and it occurred at the Aramo copper-mines in Spain, as in the neolithic flint-mines at Obourg in Belgium, that a fall of roof or a "run-in" of the levels buried the miner with his tools, who thus involuntarily provided unquestionable evidence of the implements he used in his trade. One of the most important of these was, again, the deer-horn pick, of which one is illustrated on plate XVIII, no. 5. The deer-horn hoe, or rake, was also employed (plate XVIII, no. 9), while the beam with the burr of the stag's antler (plate XVIII, no. 7) was used as a hammer for breaking up the mineral underground. But besides the deer-horn tools the prehistoric Spanish miner, like his neolithic congener in other parts of Europe, used stone implements for driving his galleries, tines of the deer for dislodging the mineral from the gangue or vein, and stone hammers or mauls for breaking it up. The galleries were very narrow, and showed by their walls, polished by the frequent passage of the miners, that they were long in use. The ore, which was broken or pounded into small fragments, was taken to the surface in wooden hods to which a leather ring or handle was fixed to allow of their being dragged along the ground in very narrow places. In many cases the workings were filled with sterile rock, just as in the case of the neolithic mine, to prevent their caving in. The question of lighting the workings can, in the case of the Aramo mines, be definitely determined. It took the form of fire-sticks or torches of resinous wood which were inserted into lumps of clay fixed to the sides of the gallery, a method which, as I will show,

was also employed in the prehistoric salt-mines near Salzberg, where, again, the deer horn was used.

Another prehistoric copper-mine, now known as the Milagro mine, was discovered at Cangas de Onis, not very far from Mieres, where similar methods and similar implements were employed. Indeed, the deer-horn pick, the axe, and the hammer or mallet have been actually found in this mine.

There were distinct evidences in the case of both these mines of the treatment of the ore on the spot and of its reduction to some form of metallic copper; but as the Romans also discovered the prehistoric workings and extensively developed the Alamo mine, care is necessary in distinguishing between the results of their smelting operations and those of their predecessors. In the instance of



Fig. 18. Copper or bronze axe from Milagro mine, Spain

the Milagro mine, however, the case is different, as copper (or bronze) axes of an early form (fig. 18) have actually been found in the prehistoric workings. This fact points to the exploitation of the mine in the early Bronze Age, but while the employment of metal was still rare and unusual; and I offer the opinion that the deduction to be drawn from the extensive use of the deer-horn pick and other horn and stone implements in

both mines, is that they were originally worked by miners who sought the copper, perhaps in its native form, for the purposes of trade or barter, and that they only subsequently learned to make direct use of it for their own purposes. I think, moreover, the deduction is fair that the workings at Alamo, where no metal objects or traces of them were found, date from an earlier period of prehistoric mining than those at Cangas de Onis whence the metal axes came.

I will now turn to a central European district and to a later period, in all probability, for still further evidence of the use of the deer-horn pick in prehistoric mining. In this case salt was the object of the venture, and very extensive workings for obtaining it were carried out in very early times at Salzberg near Hallstatt in the Austrian Tyrol. The tools and apparatus utilized were naturally of a higher order than those discovered in the sites to which I have already referred, and point to a much advanced stage in the art of mining and in general culture; but the deer-horn pick remained, nevertheless, one of the principal tools employed. Part of the beam and burr of an antler pick and the head of another pick are illustrated on plate XVIII, nos. 8 and 9. They were found in the Kaiser Joseph Stollen (27, p. 125) together with other implements, among which were a stone gad or wedge, and a portion of a copper or bronze pick; whence it is evident that in the case of the Salzberg mines in Austria, as in that of the Cangas

de Onis mines in Spain, metal tools were employed contemporaneously with implements of deer horn and stone.

The type of metal pick is particularly interesting. It is pyramidal in form, and consists of an elongated socket (fig. 19), which was fixed at right angles to a wooden haft by means of a wedge-shaped cross-piece of wood, with the result that it formed an implement (fig. 20) closely resembling in form and purport the deer-horn pick from which it was probably derived. The stone gad was of similar form.

Bronze axes, spades, and other utensils of wood, as well as sacks of hide for transporting the salt and the remains of clothing, were found in the mines in association with deer-horn tools.



Fig. 19. Metal pick.



Fig. 20. Hafted metal pick.

The salt-mines were approached by shafts, and as the prehistoric workings extend in depth to 600 feet in places (25, p. 41 ; 27, p. 125) it is obvious that artificial light must have been

employed, and in this instance, as in that of the Alamo mines in Spain, torches of resinous wood were used, the remnants of which are found in great numbers in the ancient workings (fig. 21).

But the deer-horn pick was not used exclusively in mining operations in prehistoric times. It was also employed in agriculture (33), and it was probably in general use as an implement for digging and excavating. A large number have been found (in 1908) at the bottom of the deep fosse at Avebury (28). Indeed, we find the pick still in use in Romano-British times, examples having been discovered at Woodyates (29) and at Silchester (fig. 1). The latest discoveries are those at Maumbury Rings near Dorchester, where the excavations carried out by

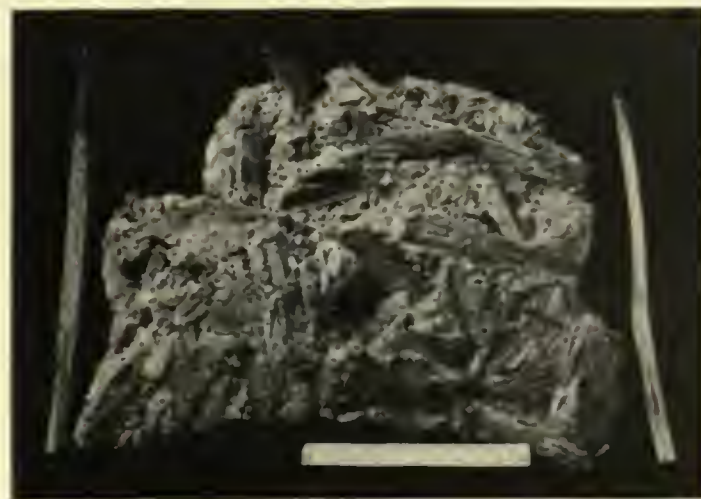


Fig. 21. Fragments of torches found at Salzberg.

Mr. H. St. George Gray in 1908, in the Roman amphitheatre, led to the uncovering and the opening up of a prehistoric shaft over which the Romans had heaped their embankment (31). The shaft, which appears to correspond in its main features with the shafts at Cissbury and at Grimes Graves, was cleared out to a depth of 30 feet, and a number of deer-horn picks, in good preservation and showing signs of wear, were discovered in the filling. It is to be hoped that further investigations will be prosecuted at Maumbury Rings and that the object of the shaft will be finally ascertained.

I feel convinced that there must be many more examples of ancient mining in this country,¹ where this interesting and instructive branch of archaeological research has hitherto attracted but little attention. Prehistoric mines are, however, well worthy of investigation as good evidence of what the intelligence and ingenuity of man could accomplish by the aid of a simple tool provided by Nature, picked up in a forest, and adapted to many purposes by the severance of some of its superfluous branches, which, in their turn, were made use of in conjunction with the principal implement in mining for flint and metals.

And, in conclusion, I must express my indebtedness to the authorities of the British Museum, to our President and Mr. Reginald A. Smith; to Baron A. de Loë, of the Musée royal du Cinquantenaire of Brussels, and to M. A. Rutot of the Musée royal d'Histoire naturelle in that town, the well-known authority on matters of prehistoric research, as well as to H. Kustos Joseph Szombathy of the Naturhistorisches Hofmuseum, Vienna, for much valuable advice and assistance in gathering together the materials which have served as a ground-work to this paper and for permission to photograph and illustrate many of the implements comprised in the valuable collections committed to their charge.

¹ Since this paper was written Mr. R. Garraway Rice, a Fellow of our Society, has called my attention to quite recent discoveries of neolithic flint-mines at West Stoke, near Chichester, where a deer-horn pick has been found.

BIBLIOGRAPHY

1. *Bulletin de la Société d'Anthropologie de Bruxelles*, tome v, quatrième fascicule, 1886-7, pp. 298 and 346.
2. *Bulletin de la Société d'Anthropologie de Bruxelles*, tome xxiv, 1905. Découverte d'un nouveau squelette de mineur préhistorique à Strépy, par A. Rutot.
3. *La Nature*, no. 1733, 11 août 1906. Mineurs préhistoriques, par A. Rutot.
4. C. Malaise, *Sur les Silex ouverts de Spiennes* (Bruxelles, 1866). [*Bulletins de l'Académie Royale de Belgique*, 2^{me} série, tome xxi, no. 2.]
5. *Congrès International d'Anthropologie et d'Archéologie préhistoriques*, 6^{me} session, Bruxelles, 1872, p. 279, iv. L'Homme pendant l'âge de la pierre polie. Sur l'âge de la pierre polie et les exploitations préhistoriques de Silex dans la Province de Hainaut, par MM. F. L. Cornet et A. Briart.
6. Ateliers et Puits d'extraction de Silex en Belgique, etc. Notice sur des Fouilles pratiquées récemment sur l'emplacement d'un vaste Atelier Néolithique de Spiennes (Hainaut), par MM. le Baron A. de Loë et E. de Munck. Extrait du *Congrès international d'Anthropologie et d'Archéologie préhistoriques*. (X^{me} Session, Paris, 1889.) Paris, Leroux, 1892.
7. *Journal of the Anthropological Institute*, vol. v, no. 3, January, 1876. Col. A. Lane Fox. Excavations at Cissbury Camp, Sussex. (Spiennes, pp. 361, 362, and 363.)
8. *Mémoire de la Société des Sciences, des Arts et des Lettres du Hainaut*, 3^e série, t. ii, 1867. A. Houzeau de Lehaie, F. Cornet et A. Briart, Premières découvertes d'anciens travaux d'exploitation de Silex faites à Spiennes.
9. *Bulletin de l'Académie Royale de Belgique*. Report of MM. Cornet et Briart, read 1st Feb. 1868.
10. Les Ateliers préhistoriques de Spiennes : communication faite à la Société d'Anthropologie de Bruxelles dans la Séance du 29 avril 1889, par L. de Pauw et E. Van Overloop.
11. Des Puits d'extraction de Silex de Champignolles, Commune de Flavacourt (Oise), et des Outils destinés à l'extraire à l'Époque néolithique, par le Docteur Th. Baudon, *Quatrième Congrès préhistorique de France*, Session de Chambéry, 1908, pp. 304-16.
12. *Dns Glas im Allertnne*, von Anton Kisa, W. Hiersemann, 1908, Band i, p. 113, Abb. 56.
13. *Journal of the Ethnological Society*, new series, vol. ii, 1869-70, p. 419, xxxix. On the opening of Grimes Graves in Norfolk. By the Rev. William Greenwell, M.A., F.S.A. (p. 427, two picks found.)
14. *Archæologia*, vol. xlv, 1890, pl. xxvii. v.
15. Les Puits préhistoriques à Silex de Valennes (Oise), par L. Thiot et G. Stalin. Communication faite à la Société Académique de l'Oise dans la Séance du 17 février 1902. Beauvais, Imprimerie Eug. Boucher, 49, rue Sadi Carnot.
16. Puits préhistoriques de Nointel, par l'Abbé Renet. *Mémoires de la Société Académique de l'Oise*, Année 1884.
17. *Journal of the Anthropological Institute*, vol. v, no. 3, January, 1876, p. 357. Col. A. Lane Fox. Excavations in Cissbury Camp (1875).
18. *Ibid.* vol. vi, 1877, p. 431. Report on some further discoveries at Cissbury, by J. Park Harrison, M.A.
19. *Ibid.* vol. vii, 1878, p. 412. Additional discoveries at Cissbury, by J. Park Harrison, M.A. (pl. x. Plan of Excavations made in 1876 and 1878.)
20. *Exposition préhistorique organisée à Bruxelles*, etc. Notice, Catalogue par le Baron Alf. de Loë, 1892.
21. Découverte et Fouille de Puits et de Galeries préhistoriques d'extraction de Silex à Avennes, par le Baron Alfred de Loë, Bruxelles, 1894.

22. *Sur l'âge des Squelettes de Mineurs néolithiques d'Obourg et de Strépy*, par A. Rutot, Bruxelles, 1907.
23. *The Journal of the Anthropological Institute*, vol. xxxix, January-June, 1909. Rev. J. W. Hayes. Dene-holes and other Chalk Excavations. Their Origin and Uses.
24. *Revista Minera, Metalúrgica y de Ingeniería*, Madrid, 1893. Año xlv. Números 1463 and 1466, pp. 333-7 and 361-5.
25. *Die Mineralbenutzung in vor- und frühgeschichtlicher Zeit*, von E. Treptow. Verlag von Craz & Gerlach, Freiberg in Sachsen, 1901, pp. 40-2.
26. *Geschichte der Bergbau- und Hütten Technik*, von Dr. Ing. Fr. Freise. Erster Band: Das Altertum, Berlin. Verlag von Julius Springer, 1908, pp. 40-1.
27. *Das Grubfeld von Hullstall in Oberösterreich und dessen Alterthümer*, von Dr. Ed. Freih. v. Sacken. Wilhelm Braunnüller, Wien, 1868, pp. 124-7.
28. H. St. George Gray. *Report British Association, Dublin*, vol. 1908, pp. 401-13, and *Report Winnipeg*, 1909.
29. *Excavations at Bokerly Dyke and Wausdyke*, 1888-91. Lieut-General Pitt-Rivers. Vol. iii, p. 135.
30. *Archæologia*, lxi. 214.
31. Interim Report on the Excavations at Maumbury Rings, Dorchester, 1908. By Harold St. George Gray. From the *Proceedings of the Dorset Natural History and Antiquarian Field Club*, vol. xxix, 1908.
32. *Matériaux pour l'Histoire de l'Homme*, 21^{me} volume, tome iv, Janvier 1887. Marcelin Boule.
33. *British Barrowes*, Greenwell and Rolleston. Clarendon Press, Oxford, 1877, p. 231, &c.
34. *Archæological Journal*, vol. xxxi, 1874. Ancient Mining Implements in Cornwall, by R. N. Worth, p. 54.

VII. *The Present Condition of the Ancient Architectural Monuments of Cyprus.* 1910.
By GEO. JEFFERY, Esq., Curator of Ancient Monuments.

Read 17th March, 1910.

THE desire of the writer is to afford some general information on the present condition, and presumable future, of these most interesting remains, and to enlist as far as possible the sympathies of all students of art and history in the preservation of mediaeval monuments, which, from circumstances of geographical position and present ownership, are comparatively unknown and uncared for.

M. Camille Enlart, Director of the Museum of Comparative Sculpture, Paris, was the first architectural authority of the present time to draw attention in a scientific manner to the great importance of the Cypriote series of monuments in the history of art. His great work on the analogies between French architectural detail in Cyprus and in France is fortunately well known in England, and easily available for reference. The Byzantine churches and monasteries have not yet been studied in detail, although their history is in all probability almost equally interesting.

The Hellenic Society of London, and the different archaeological institutions specially devoted to classical study, have been engaged all through the latter part of the nineteenth century on the problems of Cypriote philology and prehistoric archaeology. But architectural monuments hardly come within the scope of such studies as far as Cyprus is concerned. No ancient temple or other public monument survives in any part of the island. The bare outline of the Papho shrine, or a few prostrate columns buried in the sands of Salamis, are the only evidences of Greek or Roman culture beyond the innumerable sepulchres with which the whole island is literally honeycombed. A few of these tombs may perhaps be considered to rank as architectural—the so-called "Royal" Tombs, Tamassos, for example—but as a rule they are mere holes excavated in rock or earth as the case may be, and only interesting for the objects found within them, objects which now repose in the museums of New York, London, or Berlin.

The series of architectural monuments in the island begins with the latter part of the Byzantine period of art. The domical method of construction introduced in the times of the decaying Roman Empire and generally associated with early Christianity presents itself in all the ancient monuments which survive

as buildings, but such fragments of detail and ornament as give a clue to date are usually not older than the Middle Ages.

During the sixties of last century MM. Rey and de Vogüé visited the island, and the former gives sketch-plans and descriptions of some of the mediaeval castles of Cyprus in his *Architecture militaire des Croisés*. In 1881 the R. I. B. A. published a meagre account of the architectural antiquities by Messrs. I'anson and Vacher, and in 1899 appeared the magnificent *L'Art Gothique et de la Renaissance en Chypre* by M. Camille Enlart (published by the French Ministry of Public Instruction).

NOTE BY MR. NORMAN.

It may be well to add here a few historical notes by way of explanation. Cyprus came into the possession of Ptolemy I in 306 B.C., and was ruled as a dependency of Egypt till 57 B.C., when it became part of the Roman Empire.

On the decay of the Empire it was invaded by the Arabs, and though nominally under the control of the Greek Emperors of Byzantium, was governed by semi-independent princes.

In 1191 Richard Cœur de Lion took the island, in revenge for an insult to his fleet, and sold it to the Templars, who in 1192 passed it on to Guy de Lusignan, by right of his wife King of Jerusalem. The Lusignan dynasty held Cyprus till 1489, the last of them, Jacques III, marrying Caterina Cornaro, and leaving her ruler at his death. The Venetian Republic, however, forced Caterina to abdicate, and remained masters of Cyprus till it was taken from them in 1571 by the Turks under Selim II. Since 1878 the island has been ruled by England under an agreement with the Sultan.

P. N.

It is not necessary to speak at length of the monuments of the Prehistoric and Classic periods. The remarkable prehistoric tomb at Larnaca, known as the Phaneromeni, and now converted into a shrine and place of pilgrimage, has been much disfigured and mutilated in the process. The Tamassos tombs, excavated by the Berlin Museum about 1894, are enclosed with iron gates and well guarded, and a tomb of the classic period at Larnaca is under Government protection, after purchase. Another at the same place, though scheduled as an ancient monument, has been nearly destroyed by the owner in an attempt to extract the sarcophagi.

Tomb-rifling is a common occupation of the Cypriote peasant, though the cemeteries are now guarded by police, and the "Antiquities Law" of 1905 forbids exportation of ancient objects without a permit. Probably the most effective check would be the establishment of small district committees, after the fashion of the Italian *Uffizio Regionale*, in each of the six districts, for the general supervision of such matters.

The "Prison of St. Katherine" at Salamis, probably a Roman tomb, and the surrounding necropolis have been gazetted as ancient monuments, and are efficiently protected, and the same may be said of the sites of the Papho temples (Limassol district), and of Lambousa and the necropolis of Sandoukopetra (Kyrenia district).

BYZANTINE CHURCHES AND MONASTERIES.

These most interesting features of the island are entirely within the control and guardianship of the local authorities of the Orthodox Church of Cyprus. The churches are usually the property of the village church committee, whose proceedings are controlled to a nominal extent by the bishop of the diocese. The monastic property appears to belong entirely to the bishops of the different sees in which it is situated, with the exception of the larger monasteries, which still enjoy an independent status.

It is unfortunately the fact that probably no people in the world, at least the civilized world, have less of the sentiment which conduces to the preservation of historical memorials than the *modern Byzantines*. The average peasant of Cyprus, possibly a member of some local church committee, seems incapable of appreciating this sentiment as applied to the little Byzantine village church wherein his forefathers may have worshipped for countless generations. Hardly any European peasant of average respectability and intelligence but would confess to a certain interest and regard for the memorials of his forefathers, national or private. But to the Levantine Christian, who has but little ground for patriotism, and scanty conceptions of family descent, the village church is a mere utilitarian storehouse for more or less miraculous icons, about which nothing of a human interest seems to linger. As a consequence of this want of all sentiment in such matters, the ancient Byzantine churches, venerable in appearance but generally small in size, have been destroyed wholesale all over the island, and especially during these latter years of peace and plenty under the British occupation.

The few remaining Byzantine churches must be sought in out of the way places, such as the monasteries of Antiphonitissa and Akhieropiëtos, Kyrenia district; Santa Croce and Kiti, Larnaca district; the numerous ruins of the Karpars peninsula; and the monasteries of Asinon and Kalapoyotis, Nicosia district. Small Byzantine churches, disused and ruined, may be found all over the island, marking the sites of ancient villages abandoned centuries ago in obedience to the migratory habits of the natives. Few village churches in Cypriote villages of the present day appear to be of older origin than the period of the Lusignans, and the majority are not so old as the Venetian occupation.

MEDIAEVAL GOTHIC ARCHITECTURE.

1. *The Ecclesiastical Monuments of the Mediaeval Kingdom of the Lusignans.*

An historical value, second to none, attaches to the remarkable series of churches and castles still surviving in Cyprus. These monuments have been exhaustively described and illustrated in M. Enlart's great work already referred to, which has rendered all the more important monuments of the period familiar to architectural students. Since M. Enlart wrote his book the present writer has been appointed Curator of Ancient Monuments, and amongst the works which he has carried out in that capacity may be mentioned the following: (1) The formation of a small *mediaeval* museum in a disused church at Famagusta to contain the precious fragments (alas! much mutilated) of sculpture and architectural detail, which have been found from time to time in Famagusta. Many of these fragments are illustrated in *L'Art Gothique*. (2) The enclosure of seven of the ancient churches of Famagusta with iron gates, with the necessary repairs to the lower part of their walls, where stone had been torn out by the villagers in former years. (3) The repair of the cathedral church (now a mosque) of Famagusta at the expense of the Mohammedan Evquaf. (4) The enclosure of the royal château and castle of St. Hilarion, Kyrenia district. This has been effected by repairing the walls with masonry where necessary, and placing an iron gate at the entrance. Part of the latter property being now cultivated as forest land, it has been found possible to arrange for a forest-guard's hut to be provided within the enceinte. This guardian will serve as caretaker for the castle ruins.

The very necessary repairs to the Great Mosque (cathedral church) of Famagusta were begun during the past summer of 1908. The nave roof, clerestory, and upper part of the western towers were placed in a condition of thorough repair. The delegates of the Evquaf, to whom the principal monuments of the Middle Ages belong, are anxious to undertake all necessary work of conservation and support, to be carried out under the supervision of the Curator of Ancient Monuments. It is proposed to continue this very necessary work during the coming winter, including certain very important works of preservation at the sides of the building.

The magnificent ruin of Bellapaise is certainly the most important mediaeval monument in the island after the two Latin cathedrals. In general style it somewhat resembles Spanish or Provençal work, but the visitor is impressed above everything by the fact of its being a vast monument of the Middle Ages, like one of our ruined English abbeys, untouched by a Renaissance or later character. Long before the Turkish occupation the monastery had fallen into decay as an institution, and the buildings were doubtless passing into an uncared-

for condition. The abbot's house seems to have been pulled down long ago, probably by the villagers for the purpose of building the modern village which sprang up in the place of the old monastic corporation. This latter would appear to have survived until the end of the Venetian occupation, but in a very degraded condition. At some period, of which no record remains, the range of buildings, comprising dormitory with chapter-house and "commons" underneath, has been completely ruined by the fall of the vaulting in both stories. In spite of this disaster many interesting details of fourteenth-century carving remain in the walls, and the arrangements of the dormitory are traceable by the windows, wall cupboards, etc. which survive. The staircase from the dormitory down to the church is also well preserved. As a ruin all this portion is in good condition, and should be preserved in its present untouched state.

The refectory is a stupendous example of a vaulted hall, famed even in the Middle Ages for its remarkable proportions. It still stands intact, although its masonry is in places much decayed. Some slight appearances of opening in the magnificent vault (more than thirty feet span) suggest the advisability of strengthening the construction by the insertion of iron tie-rods across its width, and the building of a strong buttress against the west wall. This latter is necessitated by an evident tendency towards movement of the west wall, owing to the removal of the abbot's house; at this end of the hall there is a serious crack in side walls and vault which, although ancient, must be prevented from any further development. The ornamental details of the architecture are fortunately not sufficiently defaced to prevent a very complete and satisfactory impression of the general design.

The great refectory and the other ruins of Bellapaise are now in the custody of the village church committee of the place. The ancient church is used as the district church, and consequently kept in repair for that purpose. The church committee appears to be aware of the historic value of the monument, and desirous of seeing it preserved as a show place. The committee is disposed to accept the assistance of the Government in providing against the further ruin of the buildings.

2. *Mediaeval Castles.*

The Lusignan castles of Cyprus have a very imposing character from the positions which they occupy on mountain tops or as forming parts of the later fortifications of the Venetian period. From this circumstance they are also very well preserved in their ruined condition, a condition due more to human violence than to the ravage of time. The mountain castles with the royal château of Hilarion were dismantled and partly blown up by the Venetian Government at the end of the fifteenth century, since which time they have remained absolutely

abandoned. The fourteenth-century fortresses of Famagusta and Limassol, somewhat mutilated, are still to be traced within the earthwork additions of the Venetians. The least preserved of the mediaeval strongholds is the fortress of Kyrenia, which has suffered much from alterations at different times and from its present use as a convict prison.

In consequence of all the mediaeval castles, with the exception of Colossi, being Government property, their preservation is of course secured. The castle of Colossi, formerly the commandery of St. John, is private property, and at the present moment offered for sale together with the large estate of which it forms part. It is remarkably preserved, and has been used, time out of mind, as a storehouse and residence. The great mediaeval barn, now used as a stable, is in a more ruinous condition. It is most desirable that this ancient cradle of the Order of St. John should be preserved in its entirety, and saved from any commercial use which might involve its more or less complete destruction. A very good photograph of the place occurs in Rider Haggard's *Winter Pilgrimage*. There are no less than five shields of arms of Grand Masters of the fifteenth century on different parts of the premises, in addition to the usual complimentary shield of the Lusignan arms.

3. *Domestic buildings.*

Until within the past few years the remains of domestic architecture of the Middle Ages might frequently be discerned amongst the mud hovels of Nicosia, and the other important towns of the island. The rapid transformations undergone by whole towns under the influence of the British occupation have swept away many of these relics of a particularly interesting type of art. A remarkable house front of the fourteenth century in the cathedral square of Nicosia was destroyed in 1904 for the purpose of enlarging a compound for animals, and many of the similar houses which even now survive are perhaps doomed to the same fate. The interesting little Venetian house near the cathedral church of Nicosia, which has often been sketched and photographed, is fortunately Government property.

The domestic building of lowland country villages in Cyprus is of no very great importance. The architectural features of doorways and cloistered courts which sometimes occur are as a rule of very modest pretensions, and very few examples of a date before the eighteenth century are now to be found in the island.

In the mountain region of Troodos, amongst the pine forests and orchards of a kind unknown elsewhere in the Levant, may be found ancient houses of timber construction of the most interesting description. Some of these are of a very considerable antiquity, and they are often covered with a profusion of elabo-

rate wood-carving very suggestive of English Jacobean work. In these mountain districts, where the Turk and Mohammedan have hardly penetrated, the villages remind the visitor a great deal of Switzerland; the houses are built of stone and wood instead of mud, and roofed with tiles, and the village churches—there are no mosques—give a homely look to the picturesque hamlets.

THE VENETIAN FORTRESSES, INCLUDING THEIR CIVIC ARCHITECTURE.

The Venetian supremacy in the Levant was distinctly military in character. Venetian commerce and colonial enterprise were carried on under the guns of immense fortresses, and with the vigilant surveillance of the famous Venetian galleys. When these military elements of her commerce ceased to be maintained in an efficient manner, the comparatively few European colonists claiming to represent Venice in the Levant were easily swept away by the natives of the different countries where they had settled.

At the present day it is said that not a single genuine Italian is to be found in Cyprus; even during the sixteenth century it is perhaps doubtful if many colonists, in the ordinary sense of that word, could have been found in the island. As a consequence the Venetians are only represented by the purely military monuments of the Famagusta enceinte, the Nicosia earthwork, and the additions to Kyrenia castle and Limassol fort. A pretty little watch-tower of quite an ornamental character was also built on the cape of Kiti as a protection to the roadstead of Larnaca, its doorway decorated with the usual Venetian shields of arms and the Lion of St. Mark.

These monuments of the Venetian Republic suffered very much, as a matter of course, during the Turkish invasion. After the cessation of hostilities the damage done to the fortifications seems to have been carefully repaired, and at the present day it is difficult to realize the descriptions of the famous siege of Famagusta, seeing the very perfect condition of its walls and defences. The earthwork enceinte of Nicosia was incomplete when invested by the Turks in 1570. The curtain and bastions were evidently much damaged by the bombardment in their unfinished condition; the Turks repaired and completed the work after taking the city, and in so doing they appear to have added an immense sheathing of stone to the scarped faces of the earth rampart. This sheathing of stone was evidently obtained from the ruined buildings of the Middle Ages, with which the city was filled after the bombardment.

The Venetian additions to the castle of Kyrenia are most important examples of the art of fortification of the period; they are also on an imposing scale, and very well preserved. The castle seems to have been but little altered by the Turkish invasion (its commandant surrendered it without a siege) and by sub-

sequent warfare, and its present use as a convict prison may possibly date from a remote period, when the galley slaves of the Middle Ages occupied the positions of the modern convicts.

The fort at Limassol, an ancient tower of the fourteenth century, was covered in the sixteenth century with an outer shell of masonry to protect its walls from the newly invented siege guns. At one side an extension with vaulted apartments, now used as prison cells, was added at the same time.

All these ancient fortifications, with the exception of the Nicosia enceinte, are still in a wonderful state of preservation, and call for nothing in the way of repair or alteration. The wall of Nicosia is now unfortunately dilapidated beyond repair.

The Venetian watch-tower of Kiti, although much ruined, is carefully guarded.

The civil and domestic buildings of the Venetians are few and, with the exception of the "Palazzo del Proveditore", Famagusta, of very little importance. The "Palazzo Publico" of Nicosia survived in a ruined condition until about 1904, when its last vestige was removed to make room for the new "konak" or law courts. The column intended to support the insignia of the Republic in front of the "Palazzo" still stands within a garden surrounding a neighbouring mosque, which has encroached on the public piazza. This column is of singular interest on account of the shields of arms and a curious inscription remaining on its base.

A fragment of the sixteenth-century palace of the Proveditore in Famagusta is preserved within the present police drill-yard. It consists of the outer wall of the completely ruined residence, pierced with small "rustico" windows and a doorway. The great façade or entrance to this palace also stands fronting the west end of the former cathedral church; its three rusticated arches and the four granite columns brought from the ruins of Salamis are very much hidden by subsequent Turkish hovel-building. The stone cornice of this façade has been much mutilated, and is in fact to a great extent missing. This entrance façade is the most important Venetian monument in the island.

Facing the ruins of the palace at Famagusta stand the two Venetian columns intended to support the insignia of the Republic. They are in excellent preservation, with the exception of one of the capitals which is broken. These columns, like the one in Nicosia, stand within a Moslem cemetery or mosque inclosure and consequently are the property of the Evquaf. In all probability the small lion now lying in a much mutilated condition close to the water gate was formerly fixed upon one of these columns. These columns are monoliths of fine grey granite, and came probably from the same ruined building in Salamis which seems to have provided several other buildings in Famagusta with similar ornaments.

The celebrated sarcophagus, known in the Middle Ages as the "Tomb of Venus" (of Roman style and workmanship), which stood between the two columns of the piazza until at least the Turkish occupation, was removed to the neighbour-

ing village of Varosha about 1880 for the purpose of serving as an altar-tomb in a small private burial-ground. In its present position it is well cared for.

A few fragments of Venetian architecture in the "rustico" style still survive amongst the squalid mud houses of Famagusta. It is to be feared that, as private property, they are doomed to disappear in course of time.

NATIVE ART DURING THE VENETIAN AND TURKISH OCCUPATIONS.

As already remarked the presence of Venetian colonists can hardly be detected in any remains of the sixteenth century surviving outside the walls of the great fortresses. During the 16th-17th centuries the majority of the old village churches were refitted with new woodwork in the form of an elaborate iconostasis of a more closed-up design than possibly prevailed at an earlier period, new icons, and new lamps, chandeliers, etc. These "restorations" of the period are of great interest, exhibiting the influences of a belated Venetian Renaissance style in the type of wood-carving, and of a quite mediaeval character in the huge bronze chandeliers which still hang in many of the churches. The iconostasis is always covered with minute designs of flowers, birds, dragons, etc. copied evidently from old woodcuts of fifteenth-century style, heavily gilded and relieved on a background of dark blue. The icons displayed on the screen are usually of a superior type of Byzantine painting, and include votive pictures with donors in interesting costumes. Processional icons, movable lecterns, candlesticks, etc. in the same kind of carved woodwork, are frequently to be found in these old churches. The magnificent bronze candelabra, generally of a distinctly mediaeval type, still often hang from the vaults of village churches, although they are liable to be removed when there is a chance of replacing them with the more admired glass chandelier in the modern taste.

During the Venetian period a very remarkable development in what may be termed an "imitative style of Gothic" took place, at least in Famagusta. Of this two remarkable monuments remain: the Metropolis or cathedral church of the Greeks, and the church now known as St. Nicholas. The first is a complete ruin, shattered by the bombardment of 1571; the second, remarkably intact, has been used, time out of mind, as the Government tithe grain store. They are the largest examples in the island of a method of building and design (quite unlike the orthodox Byzantine) which originated in an effort to copy the surviving monuments of the Lusignan period.

This interesting style of the sixteenth century, with its more or less Gothic architecture and Renaissance fittings, seems to have been retained almost until the British occupation. Very little architectural work was attempted in

the time of the Turks, with the exception of the rebuilding about 1700 of the great church of St. Mammias, Morfu. About 1878 many changes took place in the social condition of the Cypriotes, and since then the huge barn-shaped churches of the modern Levantine style have sprung up all over the island; a style quite unlike the imitative "Gothic" which preceded it. (See next page.)

Many of the churches and monasteries built in the seventeenth and early eighteenth centuries are well worth careful preservation as examples of this curious survival of "Gothic" architecture. In addition to the three examples referred to many smaller churches are worth a journey to inspect: Ay. Pantaleimon and Ay. Gavril monasteries in Nicosia district; the church of Tripiotis in Nicosia; the monastery of Myrton, Kyrenia district; the great monastery of Kykko in the Troodos mountains, and others too numerous to mention.

THE TURKISH OCCUPATION.

Few if any monuments of an architectural kind can be associated with the Turkish government of Cyprus during the past three hundred years. The larger ancient houses of the Latin and Venetian periods in Nicosia, Famagusta, and elsewhere, which survived the looting and general destruction of the Turkish invasion, seem to have been converted by the conquerors into homes for themselves, with much alteration and transformation. European houses inhabited by Asiatics for three hundred years have naturally lost most of their characteristic features. The walls have been pierced with large windows in all directions, covered by clumsy jalousies, which seem to have been in vogue for centuries amongst the Turks. The most striking change, however, is in the introduction of immense square projecting bay-windows of the upper floor, without which no Turkish house is complete. In a very large number of cases the architectural mouldings and other ornaments of a street house have been chiselled off the fronts by the new occupiers.

The water supply of the cities, and also of country districts, was very much altered under Turkish management; and in Famagusta several very large baths of an architectural character appear to have been erected. At the present day these latter are all in ruins, and the water supply is again undergoing a transformation with windmill pumps.

About the middle of the nineteenth century a fairly large mosque (Arab Achmet), with a dome, was built in Nicosia, and a small octagonal library, with a dome, was added to the Mohammedan High School. These buildings are of the most unarchitectural character possible, and without ornament of any kind.

It will consequently be seen that Turkish monuments come within the scope of the present review from an historical and not an artistic standpoint.

A special reference may perhaps be made to the deplorable destruction of the ancient village churches all over the island, a destruction which has taken place more especially during the past thirty years of the British occupation, and is apparently one of the best evidences of the flourishing commercial condition of the peasantry.

In almost every case the ancient church has been pulled down merely on account of its *antiquity*, a reason which would hardly be given for such a process in any other civilized country. By *antiquity* in this case is meant, not so much a ruinous or decayed condition, as the fact that the building is no longer in the approved style of the present day.

Another and more reasonable argument for the destruction of these ancient monuments is the need for increased accommodation and modern convenience. But this argument applies to only a very few instances.

When an ancient village church is pulled down and replaced by a modern building, hardly a vestige of antiquity is allowed to survive on the site; the ancient materials are used up in the foundations of the new church, or of some other building. Tombstones are made use of for various purposes, and even the iconostasis is only occasionally adapted to the larger width of the new church.

With these purposes in view it is hardly to be expected that the average member of a Cyprus village church committee will listen patiently to any arguments which may be put forward on behalf of the preservation of such ancient monuments, at least for the present. It may be hoped that in the future a different train of ideas may be infused into the minds of the church authorities in the island by the dissemination of information as to the way in which such matters are viewed in other civilized countries.

It is the desire of the present writer to draw the attention of English archæologists to the great need existing for a dissemination of correct views on the subject, either through the local press, or by distribution of pamphlets published under the auspices of the learned societies, views in support of his efforts to preserve the ancient monuments of the island.

It will be seen from the preceding pages that Cyprus possesses a long series of ancient monuments, many of which are perhaps second to none in the world for historic and archaeological interest. Even their artistic character is of great importance. The few surviving traces of the archaic and classic periods appeal to the scholar, the beautiful Gothic art of a foreign mediaeval domination and the original developments of the more native Byzantine style interest the architect and artist, whilst the magnificent fortresses of the Venetians are amongst the finest memorials of the great Republic.

The late Bishop Stubbs, of Oxford, in his University lectures of 1878, took for his theme the history of Cyprus, which he describes as "a portion of the history

of Christendom, little noticed of late years, but which is closely connected with one of the greatest movements that ever affected the history of the world". It is hardly necessary to enlarge upon the importance to future students of such monuments as may survive the destructive influences of modern times.

At the present day the great social and commercial changes due to the British occupation of the island have given rise to a strange ambition and ostentation in the minds of the village communities. This ambition unfortunately takes the form of rebuilding the ancient village churches in a spirit of emulation, one village with another. As already remarked the villagers have little, if any, veneration for mere antiquity; in fact they consider *newness* the only thing estimable either in buildings or anything else. The problem of how to counteract such an unfortunate sentiment is sufficiently difficult, and seems only to be met by suggesting the formation of an organization based in principle on the "Uffizio Regionale" of Italy. The island is divided into six administrative districts, each having its principal town or centre of population. In each of these a few individuals, say half a dozen, might be found to act as honorary local committees for the inspection of their local historical monuments in the same way as is done in Italy. Reports on intended destruction of ancient monuments could be transmitted to Government through the proper channels, and when necessary the needful and reasonable proceedings could be taken to prevent much wanton destruction.

It may be argued that the greater part of the destruction is already perpetrated, and little remains to be rescued in the twentieth century. But the same argument holds good in almost every other country. If there is very little now to preserve of interest attaching to the historic past, it will be all the easier to accomplish. It is true that many, perhaps the majority, of the village churches of Cyprus are now destroyed and replaced by the modern "barn" type of building, but the few remaining are all the more interesting and worth preservation.

In conclusion, the present Curator of Ancient Monuments would draw attention to the fact that during the past two or three years he has succeeded in securing almost all the ancient church ruins within the walls of Famagusta from further spoliation, and that taking advantage of the Antiquities law of 1905, which was drawn up chiefly with a view of regulating the traffic in "excavated antiquities", he has obtained the registration of nearly all the Government properties which are ancient as Ancient Monuments.

That which now remains to be done is the extension of protection over the monuments which happen to be in the possession of religious bodies or private owners.

VIII. *On the Early Use of Arabic Numerals in Europe.* By G. F. HILL.

Read 14th April, 1910.

THE object of this paper may best be described by explaining how it came to be undertaken.¹ The date 1481, which occurs (Table XLIV. 15) on an Italian medal of the Sultan Mahomet II, by Constantius, happened to be called in question. On inquiry it became clear that there was no reason to suspect this particular date on the ground of the forms of the numerals. But it was equally clear that there were other problems of the same kind more difficult of solution, and that the only way to approach them with any hope of success was to collect and classify as large a mass as possible of securely dated instances of the use of these so-called Arabic numerals. As always happens, the material proved to be a thousand times more plentiful, and by no means less difficult of verification, than he who light-heartedly undertook the research had supposed.

I do not wish to depreciate the work of my predecessors, to even the most casual of whom I am indebted more than I can say; but of a systematic treatment of this subject I have found no example in English, and only one, of a limited sort, in a foreign language.

What is now offered, in the shape of over 780 classified examples, is nothing more than a *vindemiatio prima*. In no one of the numerous classes in which, with full sense of the inadequacy of the classification, I have arranged the materials, can I claim to have collected anything like a fully representative series. And it would have been absurd to attempt, within the limits imposed by time and space, to envisage more than one aspect of the question. The whole problem as to the source through which these Indian numerals, if they are, as they seem to be,

¹ The bare references which are made here and there to friends and correspondents, who have assisted in the collection or verification of material, are wholly inadequate to express the measure of my indebtedness; and some kind offices may, I fear, have escaped even that meagre acknowledgement. Nevertheless I must content myself here with a brief *gratiarum actio* to those who have placed me under very special obligation, such as Mr. C. R. Peers, to whose encouragement the completion of the paper is mainly due; Mr. J. A. Herbert, who from the beginning spared no pains to note material which might be (and always was) of service, and gave me particular facilities for working at it; Mr. Max Rosenheim, whose knowledge of German seals, coins, and medals has been of great service; Dr. Kurt Regling, of Berlin, who has taken infinite pains in connexion especially with my inquiries about German seals, a subject on which I also owe much information to Dr. August Ritter von Lochr of the Vienna Museum; Prof. David Eugene Smith, of Columbia University, a recognized high authority on the archaeology of mathematics; Herr Lockner of Würzburg, to whom I owe some of the material from that neighbourhood; Mr. Mill Stephenson, who has noted examples from brasses; Dr. George Macdonald, of the Scotch Education Office, to whose inquiries are due some interesting examples from Scotland; Mr. H. B. Walters, who has placed his great knowledge of English bells at my disposal; and M. J. A. Blanchet, whose bibliographical notes on the subject have been very useful.

Indian, came to the West, has been avoided except for an incidental reference. That problem is the subject of numerous learned monographs. The present paper has nothing to do with these numerals before they were established in the West, but, once so established, seeks to show their chronological and local distribution in a somewhat clearer fashion than is possible without a large collection of grouped facsimiles. It is perhaps unwarrantable to call them facsimiles. Only a highly skilled draughtsman could do justice to the *nuances* of the forms. But for reasons into which it is unnecessary to enter, nothing better was to be had than the rude penmanship which is reproduced in these Tables. "And with this sword," let me hope with Chaucer, "shal I slen envie."

In some ways it would be best to let the Tables, with the brief descriptive notes, speak for themselves. A few general remarks, however, may be of service, to explain the classification, to note certain instances which are omitted from the Tables, and to indicate certain lines on which further research might, one hesitates to say with profit, be made.

And first, as to the limits of the inquiry. As a general rule, I have tried to sweep into my net everything earlier than 1500 that came my way. But after that date I have exercised selection. Sometimes I have gone far into the sixteenth century; other Tables will show little after about 1510. The fact is that the instances become innumerable after 1500, and many reasons conspired against including much after the time when the use of Arabic numerals had become universal.

Secondly, since it has been quite impossible to verify everything, the mere fact of my inserting any example in the Tables must not imply that I guarantee its existence at the present time. I fear that much that Gough or even Wright described may have disappeared by now.

The first thirteen Tables deal with manuscripts, under which heading are included a few dates on drawings. These manuscript instances are arranged for the most part according to their date; but it has seemed convenient to make here and there certain departures from strict chronological sequence. Notably, in Table I are grouped together the earliest instances of the numerals as used practically in the modern manner, and also a number of examples of the forms assumed by the Boethian *apices*. These signs, used in reckoning on the abacus, although clearly for the most part, if not altogether, derived from a similar source to the signs used in algorism, assumed highly fanciful forms, and did not develop logically. Also, as the method with which they were associated ceased eventually to be used, and as they never occur outside manuscripts, they lack interest from the point of view of this paper; yet it seemed desirable to record those instances which were found in the course of search for other things.

In the remaining Tables (II-XII) the examples from MSS. are grouped as far as possible century by century; certain Tables contain groups which stand on the

border lines and might be given by one authority to the end of one century, and by another authority (or by the same authority at a different time) to the beginning of the next. But within each century or chronological group an endeavour has been made to keep the MSS. of local schools together. Thus in Tables VIII foll. all the fifteenth-century instances are collected, but the English are kept together in VIII and IX, the German in X, the Italian in XI. This plan has the advantage of sometimes bringing out local characteristics very clearly, such as the 7-like German 5, the English o of the middle of the fifteenth century, shaped like a Greek ϕ , the early upright Italian 4, and so on. Table XIII gives a few instances of Arabic numerals from Greek MSS.

The dating of these MSS., it should be stated, is not based on the forms of the numerals. They have been dated, for the most part by expert palaeographers, either according to substantial evidence, or by the general style of the writing. Nearly all the British Museum examples have been submitted to members of the staff of the Department of MSS., whose monumental forbearance under exceptionally trying circumstances it would be unpardonable not to record.¹

The traps which beset the unwary in the dating of the MSS. are of course innumerable. The assumption that the date given for the composition of a work is the date at which the MS. was written, is obviously hazardous; incautiousness in this matter has produced not a few "early" instances of Arabic numerals. Such are the dates 1136, 1217, and perhaps 1245, which have been read in MSS. supposed to be contemporary.²

The numerals are first found in MSS. of the tenth century, but they cannot be said to have been at all well known until the beginning of the thirteenth.³ During all this early period there is, perhaps naturally, considerable uncertainty in the forms, as a glance at Tables II and III will show. One group, of the end of the twelfth or the beginning of the thirteenth century (Table II. 5, 6), seems to be derived from an Eastern Arabic source, whereas the derivation of the more usual forms from Western Arabic is fairly well made out. But even here (cp. the 3 in Table II. 6, third row) one finds a fusion of the Eastern and Western forms.

In tracing development, especially in MSS., one is hampered by the fact that

¹ This applies especially to Mr. J. A. Herbert, whom I have mentioned above; but my warm thanks are also due to Dr. G. F. Warner and Mr. J. P. Gilson. I hasten to add that for any blunders of statement or interpretation which may be found in this and in the other sections of this paper, I alone am responsible.

² 1136: E. de Terreros y Pando, *Paleografía Española* (1758), p. 102, pl. 12 (530 of the Arab era). This is the date of the composition of the original work; the MS., so far as one can judge from an indifferent facsimile, appears to be of the thirteenth or fourteenth century. 1217: Terreros y Pando, p. 97, pl. 2. The script is certainly later. 1245: MS. Bibl. Strozzi, mentioned in nearly all the old treatises on the subject without verification, but doubted by modern authorities.

³ Tassin and Toustain, *Nouveau Traité*, iv, p. vii, describe a fine MS. of the eleventh century, containing the works of the Benedictine Guido d'Arezzo, who gives the numerals in a treatise on the art of reckoning. I have not succeeded in verifying this.

a scribe, copying from a MS. of a century or so before his time, may, if he is not familiar with the notation, reproduce forms which had really gone out of fashion. If he were much accustomed to use Arabic numerals he would be less likely to do this. This I think is the explanation of a very puzzling set, or rather sets, of numerals in a MS. of the late thirteenth century (Table V. 1). I confess that had I come across this MS. at the beginning of my search, I should have thought twice before going on. Here we have in use, alongside of a fully developed form of 2, a form like a pruning-hook, of which the only other instances which I have found are in MSS. of the twelfth, or, at the latest, early thirteenth century (Table II. 2, 3). Then there is a very curious form of 3, like the pruning-hook 2 with an extra line through it, alongside of a well-developed modern 3. To complete our perplexity comes a fully developed upright 7, beside the ordinary lambda-shaped form. The MS. contains elaborate astronomical tables, and the solution of the confusion probably is that the scribe was compiling from various MSS. It might be said that, if that were so, we should find the peculiar forms confined to certain columns, and not used along with the ordinary forms; but if he were familiar with only these ordinary forms he would be likely to intrude them here and there.

The upright 7 occurs in the tenth-century MS. which comes at the very beginning of the Tables; also in the two MSS. already mentioned as showing the pruning-hook 2 (Table II. 2, 3; in the latter we have also the lambda-7); in a MS. at Siena which has been dated to the thirteenth century (Table IV. 8); in an Italian MS. at Florence (Table VII. 16) which is generally admitted to be of the early fourteenth century, and which also shows the upright 4 and is, indeed, so far as the numerals are concerned, extraordinarily advanced. After that, I have failed to find any instances until after 1400 (see Table XI). Yet we need not say in despair that there is no rule; these upright 7s are quite exceptional, and the occurrence of one in a MS. is *prima facie* reason for suspecting a comparatively late date. If these exceptions serve to impress upon us the truth that scientific exactitude is not attainable in palaeography, they will do no harm.

The forms that afford the best criteria are 2, 4, and 7; next comes 5, but it is the most freakish of all figures, and therefore a little untrustworthy. The others are practically negligible.

Allowing for exceptions, it may be said that the three-stroke form of 2, as opposed to the old 7-shaped form, does not appear before the second half, and is quite rare before the end, of the thirteenth century. The transition is well seen in an English MS. of about 1300 (Table V. 7). By the middle of the fourteenth century the old 7-shaped form has practically disappeared (see, however, Table VI. 9).

As to 4,¹ there are a few examples in which a slight lifting of one of the legs

¹ Mr. George Macdonald, of the Scotch Education Office, calls my attention to a form of 4 resembling + used in certain Scotch accounts, e.g. those of the Lord High Treasurer in the Register House, Edinburgh, where the 4 in 1545 is so made, or Andrew Halyburton's Ledgers (1493-1503).

gives to the old form an appearance of the modern (*e.g.* Tables IV. 2, VI. 16). These are, however hardly misleading. The Florence MS. (Table VII. 16) has already been mentioned. The transition to the upright form begins very gradually after the middle of the fifteenth century in England (the latter half of Table VIII shows this clearly). Italy, however, is far ahead of other countries in this respect, showing a fully developed modern form both in monuments and in MSS. quite early in the fifteenth century.¹

Of 7 I have already spoken.

5 shows many fantastic forms, but the general essential of the sign is the same. A curious intrusion of a Roman V into the Arabic series is shown in an early thirteenth-century MS. (Table IV. 2). This is of interest in connexion with the probability that what we call the Arabic 5 was an adaptation of the late Roman form.²

The 7-shaped German form of 5 is well illustrated in Table X. In MSS. it is superseded early in the sixteenth century by the more modern form; elsewhere it lasts longer. It is of course an intelligible development from the older form; but as soon as the upright 7 became established, it had to disappear. The instances analysed in Tables X and XXII illustrate the conflict.

The series given in Table XIII from Greek MSS. are derived partly from Eastern Arabic, partly from Western sources. No. 2 is exactly the same as the series in the eleventh-century Chartres MS. (Table I. 7). Nos. 3 and 8 are purely Western in appearance, save for the inverted 7 in the latter. Nos. 1, 4, 5, and 6 point to an Eastern Arabic origin; note the circular form of 5 in two of them, and with some of the forms (2, 3, 4, 5, 7) compare those in the Berlin MS. (Table II. 6).

After the MSS. I have placed series from British monuments. Although the material is scanty, and I have by no means collected all the known instances, it is not out of a mere false patriotism that I have placed them first. The Wells numerals (Table XIV. 1) are among the most interesting, and probably the earliest to be found anywhere outside MSS., even if we allow that fashions of epigraphy are apt to change more slowly in monumental than in manuscript work. The upright 7 from Elgin (XIV. 4) may possibly be traced to foreign influence; it is certainly early for this island. The tendency to assimilate numerals to letters is noticeable in dates such as that of 1503 from St. Cross (Table XIV. 12) or that of 1534 from Ecclestone (Table XIV. 20), and more especially in some of the brasses in Table XVI. The h-shaped 5 is found reversed in a date in Brading Church, Isle of Wight, which has been read Mld13, but which, as Mr. Peers points out, is really A (for Anno) 1513. (See Supplementary Table, LI. 13.)

¹ A Heidelberg MS. from Kloster Salem shows the rivalry between the old and the new form in the years 1494-1499, the scribe using one form, the miniator another. *Anzeiger für Kunde d. Deutschen Vorzeit*, 1867, p. 161.

² Found, *e.g.*, on coins of Justinian I, struck in A.D. 541-2 (W. Wroth, *Brit. Mus. Catal. of Imperial Byzantine Coins*, i, p. 31, no. 56).

Pages could be filled with instances of doubtful, misread, or misinterpreted dates on English monuments. I have relegated some of them to a footnote.¹

Next follow the examples from Germany and German lands, more especially Austria. The evidence from the latter country is very plentifully published in the *Mitteilungen der kaiserlich-königlichen Central-Commission für Erhaltung und Erforschung der Baudenkmale*, the first series and the Neue Folge, which I have abbreviated as *M.C.C.* and *M.C.C., N.F.* I have found no periodical giving such plentiful illustrations of monuments from Germany, with the result that examples of the use of Arabic numerals may seem to occur more frequently in Austria, as compared with Germany and other countries, than is really the case. Italy, for instance, is, I fear, poorly represented in my Tables, although a great deal of evidence exists, to my knowledge, in an unpublished form. Of the two countries, Germany and Italy, it is racially characteristic that while the Germans seem to

¹ The Helmdon mantelpiece, a stock subject for discussion in the eighteenth century (*Philosophical Transactions*, 1731, i, fig. 55, at p. 199), supposed by many to bear the date 1133, cannot from its style have been earlier than the late fifteenth century. There was a somewhat similar oak chimney-piece at Widgel Hall, Herts., perhaps of 1516 (*op. cit.* 1735, p. 119), though the 16 has been explained as 1. 6. The most ludicrous things have been written about a cruciform arrangement of figures at Castle Acre Priory (J. H. Bloom, *Castle and Priory at Castle Acre*, p. 25), which might conceivably be meant for 1480, but is certainly not so early. The figures 1393 on a brick illustrated by Mr. Rider Haggard in *A Farmer's Year* (1906), p. 323, and since presented by him to the British Museum, appear from their style to date from the seventeenth century at the earliest. The iron scutcheon plate on the south door of the nave at Rendcombe Church, Gloucestershire, has six signs, of which the first, second, fourth, fifth, and sixth might be read as 10 417; but the third can hardly be explained as a figure. See *Arch. Journ.* vi. 291. A curious puzzle is presented by the date 1410 which was published in the *Antiquary*, xxxviii, p. 258, as from the brass of John de Campden in St. Cross, Winchester. No such date is to be seen on that brass, and all inquiry has failed to elicit an explanation. Either the facsimile given is a clever invention, for the forms are most plausible, or the person who sent it to the *Antiquary* has confused his notes as to the provenance of the date. It ought to be inquired into, as, if genuine, it (with the Fountains seal, Table L. 6) is the earliest English instance of the kind, saving the Wells numerals.

1485 occurs on a brass (of John Pulter) in a slab on an altar-tomb (of earlier date) in the north chapel of Hitchin parish church. The forms (modern 4 and 5) show that the numerals are later than the alleged date [Rubbing communicated by Mr. Murray Kendall]. The date 1489 given by Haines from a brass at Fressingfield, Suffolk, as being in Arabic numerals, is in Roman. 1490 on the brass of Wm. Fordmell, Vicar of Borden (Belcher, *Kentish Brasses*, i, p. 12), cannot be contemporary.

1265 on a bell at North Wootton near Wells (W. E. A. Axon, *Proc. Manchester Lit. and Phil. Soc.* 1876, pp. 173 ff.) is for 1625, as, Mr. H. B. Walters assures me, is proved by the work. The date 1489 on the bell at Eglington, near Alnwick, also mentioned by Mr. Axon, is in Roman numerals. The signs which have been read 1508 on a bell at Rayleigh, Essex (Deedes and Walters, *Church Bells of Essex*, p. 40), are probably not numerals at all; the third sign looks like u or n. The reading I h u s (for *Jesus*) has been suggested, but is unlikely. I h n s for *Johannes* seems to have even less in its favour.

English dates which I have not found time or opportunity to verify or use, but which should be included in any corpus, are 1483 and 1494 from Fountains, 1489 and 1494 from Ripon, all with the old forms of 4 (*Notes and Queries*, ser. iv, p. 375). Mr. H. B. Walters informs me that early dates (for bells) occur on bells at Greystoke, Cumberland (1524), Wood Ditton, Cambridge (1544), and Elmley Castle, Worcs. (1559, now recast). Mr. G. L. M. Clauson has kindly procured for me rubbings of the dates on brasses in Eton College Chapel, viz 1525, 1532 (Thomas Smith), 1545 (T. Edgcumb), and 1560 (Robert Stokins). The last shows the o with a slanting stroke through it.

be ahead in the practical use of the numerals, the Italians lead the way in the development of their forms. The fact that France produces hardly any examples cannot, I think, be wholly due to the accidents of search or publication.

German examples are also well represented because it happens to have been a German who published the most elaborate study of the whole subject which has hitherto appeared. Mauch, in his articles in the *Anzeiger für Kunde der Deutschen Vorzeit*¹ for 1861, deals very fully with the German evidence, drawn from architectural monuments, seals, etc. He has, however, little to say about MSS., and even his monumental instances are mostly drawn from a comparatively limited district. His articles are, nevertheless, the only serious attempt known to me at a systematic treatment of the subject.²

It is hardly necessary to mention the date 1007 on a gravestone at Katharcin near Troppau, since it is universally rejected.³ But the following require to be dealt with:

1299. This, which appears to be a sculptor's mark on a gravestone of the Count of Katzenellenbogen, in the Schlossgarten at Biberich, seems to be very doubtful. [The only illustration I have seen is in Hefner-Alteneck, *Trachten*, i. Taf. 27.] I have not included it in my Tables.

Fig. 1. Date at Weissenburg.

Fig. 2. Date at Pforzheim.

1327 (fig. 1). On the church at Weissenburg im Nordgau (Mittelfranken). The contemporaneity of this is with justice doubted by Mauch (*Anzeiger* (1861), p. 81). Cp. the 1439 of Table XVIII. 4.

1371 (fig. 2). Schlosskirche, Pforzheim. See *Anzeiger*, 1861, p. 83. The evidence as to this is highly unsatisfactory. Herr E. Wagner of Karlsruhe, who kindly made inquiries for me, elicited the fact that an inscription in memory of Luitgard Göldenerin with this date is now painted on the wall of the church; but it is uncertain whether it was always painted on the wall, or whether when the church was restored in 1880 the plaster was laid over the possibly still existing slab. The inscription is given by Gehres, *Kleine Chronik von Pforzheim* (Karlsruhe, 1811), p. 30. It is clear that the forms as they now stand are useless; but even those given in publications earlier than 1880 seem to me very doubtful for the date.

1398. This supposed date at Constanz is not contemporary, the context showing that the inscription cannot be earlier than 1462. See J. Marmor in *Anzeiger*, 1861, p. 268 f.

¹ Hereafter usually referred to simply as *Anzeiger*.

² Some information may also be gained from Denzinger's articles in the *Archiv des histor. Vereins von Unterfranken und Aschaffenburg*, ix (1847), pp. 163, 178.

³ *M.C.C.* xi (1866), p. xlvii; *Anzeiger* (1876), p. 34.

The dated German seals are among the most interesting and also the most treacherous examples with which we have to deal. In Germany and in Austria, in the second half of the fifteenth century, it became quite the fashion for any person or corporation, to whom a grant of arms was made, to place the date thereof on a seal.¹ There are, however, undoubted instances of the practice in the fourteenth century, which will be found in the Tables. Here we may deal with a few doubtful or otherwise interesting examples.

1235 (pl. XIX, no. 1). Seal of Gottfried von Hohenlohe. See *Anzeiger*, 1861, p. 48; 1866, p. 265; 1871, p. 261 f.; Albrecht, *Die Hohenlohe'schen Siegel des Mittelalters*, no. 6: Fürst Hohenlohe-Waldenburg, *Sphragistisches Album*, Beilage A zu Hohenlohe; G. A. Seyler, *Abriss der Sphragistik*, p. 28. No original impression is known; but there are or were *two examples of the matrix* in the Fürstlich Hohenlohe-Neuensteinsches Kunst- und Raritäten-Cabinet in Kirchberg a. d. J., one in copper, the other in silver; both 0.5 cm. thick and smooth at the back. Both matrices are the same, but one is better engraved than the other. One of these matrices seems to be mentioned as early as 1644. No other seals of the thirteenth century dated in this fashion are known. The work is extremely good. It has been suggested, in explanation of the early occurrence of these numerals, that Gottfried was frequently in Italy. That is no explanation, since the numerals would be as surprising in Italy as in Germany. The Trinity College, Cambridge, MS. (Table III. 1), supposing it to be rightly dated, shows that the forms of 2 and 3 are just possible in the first half of the thirteenth century. But I have found no other instance of this form of 2 so early. If the last figure is a 5 (and it can hardly be, as Seyler reads it, a 3 reversed, seeing that the engraver had just made one the right way), I can find no parallel to it *until the sixteenth century*, when it is furnished by the Brensbach date of 1526 (Table XXII. 12). The possibility of this seal being a forgery of the sixteenth century must therefore not be overlooked. It is strange that there are extant two matrices and no ancient impressions.

1320. Trostberg (pl. XIX, no. 8). The wax impression from the Germanisches Nationalmuseum, Nürnberg, shows clearly that we have to do with a sixteenth-century seal. With the looped forms of the numerals compare those in

¹ A list of dated seals from 1369 onwards is given by Mauch in *Anzeiger* (1860), pp. 13 ff. See also E. Melly, *Beiträge zur Sigillographie*, and the various volumes of the *M.C.C.* referred to in the descriptions of Tables XXI–XXVI. Outside Germany early seals with Arabic numerals are very scarce, if indeed they occur at all before the sixteenth century. England, curiously enough, offers an isolated example as early as 1410 (Table I. 6). G. Demay, *Inventaire des Sceaux de la Normandie* (1881), p. vii, gives 1503 (Philippe de Clèves, Seigneur de Ravenstein), 1511 (Denis, Abbé de Loos), and 1515 (George, Duke of Saxony) apparently as the earliest instances of the use of Arabic numerals for this purpose known to him! For some information as to German seals (which, however, reached me too late for incorporation) I have to thank Dr. E. Gritzner of Weimar; he notes, for instance, the seals of the city of Munich of 1478, and of Weissenhorn in Bavaria ("S' civium in Wessenhoren 1476"). Dr. Theodor Hampe has kindly enabled me to obtain reproductions of a certain number of seals in the Germanisches Nationalmuseum at Nürnberg.



1



3



2



4



5



6



7



8

GERMAN SEALS WITH DATES IN ARABIC NUMERALS

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Table XXII. 4, 15. The seal is mentioned in *Anzeiger* (1866), p. 265; by G. A. Seyler, *Abriss der Sphragistik* (1884), p. 28, and elsewhere, without suspicion.

1408. "Sigillum Universorum Civium in Marchekk." Melly, *Beiträge*, pl. i. and p. 37. Melly says "the work shows that the date 1408 cannot refer to the making of the seal, but to a renewal of the grant of arms, or else, more probably, it arose from an engraver's mistake for 1480".

1410. Gars. Written 14x (with the old form of 4). *M.C.C.* xix, p. 88. Not contemporary.

1439? (pl. XIX, no. 2). Seal of Otto von Henneberg, Germ. Nationalmus., Nürnberg. This is the identification given in *Anzeiger* (1859), p. 250, but the date is queried. The last digit looks like a 4. Further, Otto V, the only one who can be in question, was only two years old in 1439. He died in 1496. The date may be 1484. The inscription is "S. oct. von Gots gnade g̃ve und her v. henbg".

1449. Markt Veldkirchen. *M.C.C.*, p. cxxxiv. This has the modern 4, and looks altogether more modern than the date.

MCCCCA = 1470. Print from seal of Plebanus John of St. Moritz in Augsburg. On this, which is interesting from the point of view of notation, see below (p. 150).

1488. On a seal of the city of Baden (Lower Austria) commemorating the siege by the Turks in 1529. The date is meant for that of the Wappenbrief, but should be 1480. It has the upright 4. A similar seal with the right date, 1480, was engraved in 1566. *M.C.C.* ix, p. v.

Table XXVII records a few German examples from miscellaneous objects, some quite late, but interesting because of their fantastic forms.

The reproductions of examples from German paintings (Tables XXVIII, XXIX), as of those of Italy and the Low Countries, have been taken for the most part from the facsimiles in the official catalogues of the collections mentioned. These sources, supplemented by a few notes of my own from actual pictures, ill represent the mass of interesting material which this class of objects affords.

In Table XXX woodcuts, metal-engravings, and printed books have been lumped together, perhaps not very scientifically.¹ The list of examples from printed books might of course have been made enormously larger, but with doubtful profit.

Among the German coins and medals I have not included the Schaumünze of Maximilian and Mary of Burgundy bearing the date 1479, and the ages (19, 20) of the pair, because it is a later reproduction, based on the contemporary medal by Candida.

¹ My thanks are due to Mr. Pollard and Mr. Scholderer for information with regard to early printed books, both German and Italian. I am assured that the mark of Caxton, which appears to combine an ancient 4 with a modern 7, should not be regarded as embodying a date.

The series of Swiss coins, and of coins, jetons, and medals of the Low Countries, are in various ways interesting; the former (Table XXXIV. 1) as affording the earliest known instance of a Western coin proper with date in Arabic numerals;¹ the latter as showing a fairly continuous run of dates from the last quarter of the fifteenth century onwards, and illustrating the reluctance of the old forms of 4 and 7 to disappear.

The forms of the numerals 2, 3, 4, 5, which occur on certain *rifacimenti* of the famous late fourteenth-century medal of Constantine seem to me to belong to the early sixteenth century, and to be Flemish. Cp. *Num. Chron.*, 1910, pp. 115 f.

In connexion with these examples from the Low Countries I may notice the puzzling dates on the Flemish tapestry of the "Triumph of Chastity" in the Victoria and Albert Museum, to which Mr. Maclagan has directed my attention. The date 1507 (with the lambda-7) is quite normal, and suits the style of the work. But on the same piece is a date which can as it stands only be read as 1570 (with

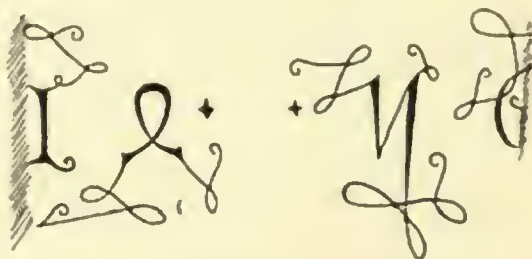


Fig. 3. On a painting by Jean Fouquet.

the modern 7). As there is considerable space between the 7 and 0 it may be that the bottom stroke of a Z-shaped 2 was omitted in weaving, as Mr. Maclagan suggests, in view of the carelessness or illiteracy that is elsewhere perceptible in the inscriptions. The date would then be 1520, representing the date of the completion of the work. Other explanations suggest themselves (as a mistake of 1570 for 1507); but they are less probable.

Table XL includes a few medals, some of which are French, others perhaps Italian, while even in those which are certainly French Italian influence is strongly felt. French evidence is again curiously lacking. It is convenient here to note the graceful instance (1456) from the portrait by Jean Fouquet in the Liechtenstein Collection, which, since it hardly admits of tabulation, is reproduced in fig. 3. Another early date, 1461, is said to occur on a portrait by Nicolas Froment in the Uffizi.

Tables XLI and XLII are compiled, as I have already indicated, chiefly

¹ The earliest occurrence of a date in Arabic numerals on a coin is found in the reign of Roger of Sicily, 533 A.H. = 1138 A.D. See E. v. Zambaur, *Contributions à la Numism. Orientale*, *Num. Zeitschr.*, xxxvi, p. 83. But this occurs as part of an Arabic inscription. I owe the reference to Mr. J. Allan.

from official catalogues.¹ Table XLIII is mainly from Fortnum's *Majolica*: Tables XLIV and XLV, on the other hand, are nearly all compiled from original medals, plaster casts, or good photographic reproductions. Research has confirmed much that seemed doubtful in this group; thus the Carrara medals, dated 1390, are now generally admitted to be contemporary.² The incised dates on Table XLIV. 5, 6 cannot be doubted. The appearance of the old form of 4 in Table XLIV. 12, 13 is explained in the notes to the Table.⁴

Table XLVI, which it might have been hoped would be large, is rather inadequate. A certain number of additions will be found in Supplementary Tables L and LI. On the other hand, Italy affords one of the most striking instances of the necessity of some such collection as I have endeavoured to make: the date 800 on the sarcophagus of Pagavus Petrasanta at Milan, which is obviously and without question of late origin.⁵ I notice also the date 1322 on a piece of artillery (which was in existence at Mantua down to 1849) as being exceedingly doubtful in the form illustrated and accepted as genuine by Rocchi.⁶

A curious problem is presented by the 140 reproduced in fig. 4. The numerals are incised on the sole of the right sandal of a statuette of Marcus

¹ The date 1391, on a painting by Spinello Aretino, will be found in the Supplementary Table L. 5, having been recently sent me by Mr. A. H. S. Yeames. 1464 is to be seen on a painting by Antonazzo Romano at Rieti (*Rassegna d'Arte*, 1909, p. 43) and on the banner with Our Lady protecting Perugia painted by Benedetto Bonfigli (Heywood, *Perugia*, at p. 299).

² I have not included the two examples of 1519 on two pieces of Gubbio ware (Fortnum, p. 29) because of their suspiciously modern appearance.

³ See especially Guiffrey in *Rev. Num.* (1891), pp. 17-25, and J. von Schlosser in *Jahrb. d. kunsthist. Samml. des A. H. Kaiserhauses*, xviii (1897), pp. 64 ff.

⁴ This table of Italian medals may claim to be fairly representative; but I have not been able to verify the following: 1455, Franc. Sforza (Armand, *Médailleurs italiens*, ii. 26 1, perhaps not contemporary); 1460, Borso d'Este (Heracus, pl. lii. 1); 1467, plaquette by Enzola (Armand, i. 46. 13); 1490, Unknown woman (Armand, iii. 183 D); 1498, Gioacchino della Torre (Armand, ii. 71. 10); 1498, Gianfrancesco della Rovere (Armand, ii. 106. 22); not to mention some later than 1500. The dates 1488 on a medal of Francesco Accolti and 1498 on one of Ser Cecone de' Baroni, and indeed the medals themselves, are false. (See *Rev. Num.* (1895), p. 460, and *Burlington Magazine*, Oct. 1909, p. 31.) The 8s in the date on the Accolti medal are like a recumbent ∞ , a shape which comes in towards the end of the sixteenth century. See Table XII. 13.

⁵ F. Burger, *Gesch. des florent. Grubmals* (Strassburg, 1904), p. 34. Mr. A. H. S. Yeames has kindly reported to me a number of interesting examples; those of which I have been able to obtain clear photographs are entered in the Supplementary Tables. The others are from the armorial tablet in the Court of the Bargello at Florence: 1437, 1439, 1445, 1448, 1456, 1463, 1475, 1487. Other instances which I have noted, but not yet succeeded in verifying satisfactorily (even to the extent of learning whether they are in Arabic numerals at all), are: 1456, bust at Berlin, inscribed ALEXO DI LIXCA MIXI (Venturi, *Storia dell' arte ital.*, vi, p. 636, doubts the inscription); 1461, Berlin, terracotta copy of a Madonna by Bellano (Venturi, p. 487, suspects this inscription); 1475, tomb of Lorenzo Roverella, in church of San Giorgio di Ferrara, by Ambrogio da Milano (*ib.* p. 620); Cremona, Duomo, fragment of tomb of S. Arialdo, signed ZO. ANTONIO. AMADEO. F. OPVS. 1484 (*ib.* p. 901).

⁶ *L'Arte*, ii (1899), p. 348.

Aurelius on horseback, a copy of the famous statue on the Capitol.¹ The statuette (which is in the Vienna Museum) has been ascribed to L'Antico,²



Fig. 4. The date 1470 on a bronze statuette of Marcus Aurelius, Vienna Hofmuseum.

although the date creates serious chronological difficulties. However, in his splendid monograph³ on L'Antico, which has just appeared, Dr. H. J. Hermann definitely discards the attribution to L'Antico, chiefly because of the date. He urges that the figures must represent a date, not an inventory-number, since few collections at that period could have contained so many as 1470 objects of this kind. I may add that an inventory-number would be incised after the object had been acquired for the collection, whereas these figures have the appearance, at least in the photograph, of having been incised in the soft material of the original model. It is just conceivable that it was an opus-number, incised by the artist at the last moment before casting. The point, however, which chiefly concerns us at present, is this: if this is a fifteenth (*a fortiori* a sixteenth) century Italian bronze, how come these archaic forms to appear on it; forms that had long vanished from Italian arithmetic, unless the evidence marshalled in this paper contains even more serious gaps than I had suspected? There is nothing northern about the style of the bronze, although it is difficult to judge of such a matter in a close copy of an antique. Perhaps the most probable solution is that it is the work of a northern artist who had settled in Italy, but had not acquired the Italian style of writing.

Dr. Hermann points out that the statuette may well be connected with the repairs to which the statue was subjected in the reign of Paul II. These were begun in 1466, and as the work was still unfinished in 1470,⁴ the statuette may well be connected with the restorer's task. But whatever be the explanation of the numerals, analogies must be found before we can accept them as having been incised by an Italian in the fifteenth or early sixteenth century.

The Italian engravings and printed books do not offer much of interest, but the Italian reproduction of a German date in Table XLVII. 8 is worth noting. An important example of the year 1461 was recently brought to my notice by Mr. A. M. Hind, and will be found in Table LI. 1.

Table XLVIII should be used with great caution, both the authorities on which it is based, Rottiers and Belabre, being untrustworthy. But I could not bring myself to exclude the evidence from this outpost of Western culture. Italian influence was evidently strong there. As the knights left the island in

¹ I am obliged to Ritter A. von Loehr for the photograph from which the illustration is made.

² See, for instance, J. von Schlosser, *Werke der Kleinplastik in der Skulpturensammlung des A. H. Kaiserhauses*, i, p. 4, pl. x.

³ *Jahrbuch der kunsthist. Sammlungen des A. H. Kaiserhauses*, xxviii (1910), pp. 268, 271.

⁴ E. Müntz, *Les Arts à la Cour des Papes*, ii. pp. 27, 92 ff.

1522, it is improbable that any of their inscriptions were restored; the more is the pity that good facsimiles are wanting.

At the time when Arabic numerals were beginning to make their way into common use, and even before that, some people had realized the extraordinary obstacle that the Roman system of notation placed in the way of progress. Greek numeration, which is as much superior to Latin as it is inferior to Arabic, is sometimes used in Western MSS. Thus in the Libri Catalogue (Sotheby's, 1859) we find:

(a) No. 298 and pl. III. St. Cyprian, saec. VIII-IX (not VII-VIII as in the catalogue), numerical signs according to the ancient Greek alphabetical system.

(b) No. 299. St. Cyprian, now in the Bodleian. Greek numerals, P for 100, C for 110 (instead of 200), *stigma* sometimes for 7 (instead of 6). Both these are certainly Western MSS.

(c) No. 760 and pl. XXI. Pancratii martyris officium et passio. Saec. X. Greek letters up to Π with numerical values.

The Greek system, however, never found favour in the West. Still less did the invention (or conveyance) of an Englishman, John of Basing, who is said to have introduced "Greek" numerals. As a matter of fact they were nothing of the kind. Matthew Paris (*Chronica Majora*, ed. Luard, v. 285) is the authority for the statement. His system was a combination of a constant vertical with varying horizontal or slanting lines. With certain exceptions, multiplication by ten was indicated by reversing the sign; thus J = 8, L = 80. There was a special sign for the cipher. John of Basing's system falls into the same class with the semaphore-like system which some old writers call Chaldaean, and which seems to have been used by astrologers.¹

Finally, a few notes on certain peculiarities of notation may not be out of place.

The change of direction in writing numerals, from the old one of right to left to the modern one of left to right, is illustrated by a few cases. One is given by Hale, *Domesday of St. Paul's* (p. xiv): "Tabula Registri de Visitatione Maneriorum per Robertum Decanum, anno domini m.cc.xxii." Here the folios are numbered with Arabic numerals, written originally from right to left, the numbers being afterwards struck out, and a fresh series written in nearly the same character, but from left to right. Uncertainty as to whether they are contemporary with the date given has prevented their inclusion in the Tables.

The mixture of Roman and Arabic numerals is very common. In addition to instances which will be found in the Tables, I give the following from MSS.:

B.M. Royal 10 E. iii f. 294: caution dated a° dñi m° cccc^{mo} 6°. English.

B.M. Royal 12 C. xv f. 264: owner's signature, anno dñi m° 400. English.

¹ See G. Friedlein, *Die Zahlzeichen und das elementare Rechnen der Griechen und Römer*, Erlangen (1869), p. 12 and pl. i. For other artificial systems see Wattenbach, *Anleitung zu lat. Paläogr.*⁴, p. 103.

B.M. Sloane 2478 f. 35 b.: mill' cc' 66"; cf. ff. 15, 15 b.

B.M. Harl. 2316. m' cc' 58, m' ccc' 43, &c. English mid. XIV.

Mabillon (*de re Dipl.* t. xv, p. 373, ed. 1681) gives the following example ("ex cod. Cavensi in cujus initio monachus Benedictinus crucem ferens pingitur") of chapter numbering: 1. 2. 3. 4. 5. 6. 7. 8. 9. x. xi. x2. x3. x4. xxx. xxx1. 302. 303. xxxx. 401. 405.

1. 5. iiii. = 1504. See Jakobs u. Ukert, *Beiträge zur älteren Litteratur oder Merkwürdigkeiten der herz. öff. Bibl. zu Gotha* (Leipzig, 1835), ii. 1. 64 note. m. ccc. 35 = 1335. *Id.* i. 2. 208.

14.LXIII, 14.LXX, 15.6 (= 1506): see Wattenbach, *Lat. Paläogr.*, p. 104. For the omission of o in the tens' place see Table XVIII. 2.

m. cccc. 8 ii = 1482, Wattenbach⁴, p. 104.

An unusually interesting example is the woodcut representing the seal of John, priest of St. Moritz in Augsburg, with date a' m' cccc 7 (the 7 being of the *lambda* form). The original block of this is in the Hof-Bibliothek, Munich. Prints of these were used by John as an ex-libris, e.g. in books of *circa* 1472 and 1475. The date thus appears to be meant for 1470; the years of the decade might be added by hand. It cannot mean 1407. Libri, *Mon. ined.*, pl. lii; Schreiber, *Mannet*, 2039; *Catal.* 42.

The example from Mabillon shows the notation 302 for 32. Of the same kind is the date anno dni. 1000. 300. 80. 4" in a MS. in the Plimpton Collection (D. E. Smith, *Rara Arithmetica*, p. 444). The forms 610 (for 16) and the like (see note on Table IV. 1) are curiously systematic, evidently assuming that the numbers would go up to 100 at least. Less logical, but easily to be understood, are the following:

15011 on a majolica tile in the Civic Museum, Turin. Wallis, *Italian Ceramic Art: the majolica pavement tiles of the fifteenth century*, fig. 66.

15013 (for 1513). S. Antonino of Florence, *Summula confessionis*, printed at Paris.

15013. Date in colophon of *Confessionale* of S. Antonino, printed at Paris. Communicated by Prof. Pernice from a copy at Greifswald (No. 910). See Wattenbach⁴, p. 105.

As a modern parallel to these it may be worth mentioning that in a recent letter from a resident in Rome I read that "the Vittorio Emanuele Monument, like everything else, has got to be ready for the celebrations in 19011".

Readers who use the Tables which here follow are reminded that a certain number of examples, received too late for incorporation, will be found in the Supplementary Tables XLIX ff.

II. MSS.: XII-XIII CENT.

1	1	2	3	4	5	6	7	8	9	0	XII early.
1	1	2	3	4	5	6	7	8	9	0	1143.
1	1	2	3	4	5	6	7	8	9	0	XII-XIII.
1	1	2	3	4	5	6	7	8	9	0	c. 1200.
1	1	2	3	4	5	6	7	8	9	0	XII end.
1	1	2	3	4	5	6	7	8	9	0	XIII.
1	1	2	3	4	5	6	7	8	9	0	XIII.

III. MSS.: XIII CENT.

1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	c. 1230-50.
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	1246.
1	2	3	4	5	6	7	8	9	0	c. 1250?
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	aft. 1264.
1	2	3	4	5	6	7	8	9	0	c. 1280.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII end.

I. MSS.: EARLIEST FORMS AND BOETHIAN APICES.

1	2	3	4	5	6	7	8	9	0	976.
1	2	3	4	5	6	7	8	9	0	X.
1	2	3	4	5	6	7	8	9	0	1077.
1	2	3	4	5	6	7	8	9	0	XI.
1	2	3	4	5	6	7	8	9	0	XI.
1	2	3	4	5	6	7	8	9	0	XI or XII.
1	2	3	4	5	6	7	8	9	0	beg. XII.
1	2	3	4	5	6	7	8	9	0	XII.
1	2	3	4	5	6	7	8	9	0	XII.
1	2	3	4	5	6	7	8	9	0	c. 1200.
1	2	3	4	5	6	7	8	9	0	c. 1200.
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	XV.
1	2	3	4	5	6	7	8	9	0	XVI early.

IV. MSS.: XIII CENT. (continued).

1	II		2	4	9	8	0	XIII beg.
2	I	7	v	6	9	8	0	XIII early.
3	I	777	4	6	9	8	0	bef. 1271.
4	I	22	44	66	99	88	0	XIII end.
5	I	7	4	6	9	8	0	XIII end.
6	I	222	44	66	99	88	0	1256.
7	II	7	4	66	99	88	0	XIII.
8	I	2	44	66	99	88	0	1272.
9	II	222	44	66	99	88	0	c. 1260-70.
10	I	17	4	6	9	8	0	XIII.
11	8	77	44	66	99	88	0	
12	I	77	44	66	99	88	0	

V. MSS.: XIII-XIV CENT.

1	II	77	44	66	99	88	0	XIII late.
2	II	27	44	66	99	88	0	
3	I	7	44	66	99	88	0	
4	I	222	44	66	99	88	0	
5	I	77	44	66	99	88	0	XIV beg.
6	I	7	44	66	99	88	0	XIII-XIV.
7	II	772	444	666	999	888	000	c. 1300.
8	I	22	44	66	99	88	0	c. 1300.
9	I	2	44	66	99	88	0	XIII-XIV.
10	I	7	44	66	99	88	0	XIII-XIV.

VI. MSS.: XIV CENT. ENGLISH

1	I	77	44	66	99	88	0	c. 1320-30.
2	I	7	44	66	99	88	0	XIV early.
3	I	772	44	66	99	88	0	XIV.
4	I	772	44	66	99	88	0	XIV early.
5	I	77	44	66	99	88	0	1334.
6	I	22	44	66	99	88	0	XIV early.
7	I	77	44	66	99	88	0	c. 1330-40.
8	I	2	44	66	99	88	0	XIV.
9	I	77	44	66	99	88	0	mid. XIV.
10	I	2	44	66	99	88	0	XIV.
11	II	2	44	66	99	88	0	XIV.
12	II	2	44	66	99	88	0	c. 1350.
13	I	2	44	66	99	88	0	XIV.
14	I	2	44	66	99	88	0	aft. 1367.
15	I	2	44	66	99	88	0	1380.
16	II	2	44	66	99	88	0	1381.
17	I	2	44	66	99	88	0	XIV late.
18	I	7	44	66	99	88	0	XIV.

VII. MSS.: XIV CENT. (continued).

	i	r	f	p	c	^	8	92 ^{two}	0	XIV early.
1	1	22 ^{two}	3	qg ^{II}	G	A	88 ^{two}	9	0	aft. 1301.
2	1	2	3	y	G	A	8	99	0	1311.
3	11	22 ^{two}	3	y	G	A	8	9	0	aft. 1367.
4	1	Z	3	y	G	A	8	9	0	XIV early.
5	11	772	33	y	GG	A	8	9	0	1303.
6	1	772	33	yy	G	A	88	99	0	XIV early.
7	1	772Z	333	yy	G	A	8	9	0	c. 1350.
8	'	T	3	y	G	A	8	9	0	XIV end.
9	1	L	3	y	G	A	8	99	0	XIV early.
10	1	2	3	T	G	A	8	99	0	c. 1325-30.
11	I	7	3	y	G	A	8	9	0	1315? 1325?
12	/		3	y	G	A	8		0	1327.
13	1	2	3	y	G	A	8		0	XIV.
14	11	777	3	yy	G	A	8	9	0	XIV?
15	] ]	Z	3	y	G	A	8	9	0	
16	1	Z	3	y	G	7	8	9	0	
17	1	2	3		G	5	8		0	1382.

1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	7	1	1	1	1	1	11	1	1	1	1	1	1	11	1	1	1	11	11	1	1	1
2	Z	2	22	22	22	2	2	2	2	2	2	2	2	22				2	2	2	2	222
3	3	3	3	33	3	3	3	3	3	3	3	3	3	33				3	33	3	3	333
4	4	4	4	44	4	4	4	4	4	4	4	4	4	44				4	4	4	4	444
5	5	5	5	55	5	5	5	5	5	5	5	5	5	55				5	5	5	5	555
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				6	6	6	6	666
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				7	7	7	7	777
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8				8	8	8	8	888
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9				9	9	9	9	999
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				10	10	10	10	101010
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11				11	11	11	11	111111
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12				12	12	12	12	121212
13	13	13	13	13	13	13	13	13	13	13	13	13	13	13				13	13	13	13	131313
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14				14	14	14	14	141414
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15				15	15	15	15	151515
16	16	16	16	16	16	16	16	16	16	16	16	16	16	16				16	16	16	16	161616
17	17	17	17	17	17	17	17	17	17	17	17	17	17	17				17	17	17	17	171717
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18				18	18	18	18	181818
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19				19	19	19	19	191919
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20				20	20	20	20	202020
21	21	21	21	21	21	21	21	21	21	21	21	21	21	21				21	21	21	21	212121
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22				22	22	22	22	222222

X ASS.: XV CENT. (continued). (GERMAN.)

1	1	2	33	94	777	6	^	8	94	0	1422.
2	1	2	3	9	7	6	^	8	9	0	c. 1420.
3	1	2	3	8	7	6	^	8	9	0	1426-30.
4	1	2	3	8	7	6	^	8	9	0	1430.
5	1	2	3	8	7	6	^	8	9	0	c. 1442.
6	1	2	3	9	7	6	^	8	9	0	XV.
7	1	2	3	8	7	6	^	8	9	0	XV.
8	1	2	3	8	7	6	^	8	9	0	c. 1458.
9	11	2	3	88	74	66	^	8	9	0	1468.
10	11	2	3	88	7	66	^	885	9	0	c. 1463-73.
11	1	2	3	8	7	6	^	8	9	0	1472.
12	1	2	3	8	7	6	^	8	9	0	1480.
13	1	2	3	8	7	6	^	8	9	0	XV.
14	1	2	3	8	7	6	^	8	9	0	1493.
15	1	2	3	8	7	6	^	8	9	0	1494.
16	1	2	3	8	7	6	^	8	9	0	1494.
17	1	2	3	8	7	6	^	8	9	0	1495.
18	1	2	3	8	7	6	^	8	9	0	1497.
19	1	2	3	8	7	6	^	8	9	0	1498.
20	1	2	3	8	7	6	^	8	9	0	1500.
21	1	2	3	8	7	6	^	8	9	0	

IX. MSS.: XV CENT. (continued).

1	Q	3	2	3	2	3	Q	1	XV.
2	2	3	2	3	2	3	Q	1	XV.
3	2	3	2	3	2	3	Q	1	c. 1450-60.
4	2	3	2	3	2	3	Q	1	XV.
5	2	3	2	3	2	3	Q	1	c. 1460.
6	2	3	2	3	2	3	Q	1	1467.
7	2	3	2	3	2	3	Q	1	1482-5.
8	2	3	2	3	2	3	Q	1	XV late.
9	2	3	2	3	2	3	Q	1	1483-8.
10	2	3	2	3	2	3	Q	1	1488.
11	2	3	2	3	2	3	Q	1	c. 1427-60.
12	2	3	2	3	2	3	Q	1	XVI.
13	2	3	2	3	2	3	Q	1	1451.
14	2	3	2	3	2	3	Q	1	1460.

XII. MSS.: XVI CENT.

1	||		γγ	4	77			oo	1503.
2	|				5			o	1504.
3	|||				γγ	σ		oo	1505-10.
4	|	2		2	γ		8	o	1508.
5	|	2			γ			o	1510.
6	|		3		5				1513.
7	||			4	5				1514.
8	|	2	2	4	γγ	6	7	9	c. 1515.
9	||				5	>			1517.
10	|	2	3		5				1523.
11	|	2	3	2	5	6	8	9	c. 1524.
12	|	~	γγ	4	γγ	6	8	9	1545.
13	|	2	3	4	5	6	∞	o	c. 1560.

XIII. MSS.: GREEK.

1	|	π	μ	ς	ο	ς	ν	ν	ο	XIV.
2	|	ζ	σ	μ	γ	μ	ν	ν	ο	XIV.
3	|	2	3	6	γ	6	ν	ν	ο	XIV.
4	|	ν	μ	γ	8	γ	ν	ν	ο	XV.
5	|	ν	μ	γ	8	γ	ν	ν	ο	?
6	|	ν	μ	γ	ο	γ	ν	ν	ο	XV.
7	|	2	3	6	ν	6	7	9	ο	XV.
8	|	2	3	6	γ	6	ν	ν	ο	XV.

XI. MSS.: XV CENT. (continued). (ITALIAN.)

1	|	2	3	2	γ	8	γ	ο	c. 1400-16.
2	|	2				8		ο	1427.
3	|	~	2	γγ	6	8		ο	c. 1400-35.
4	|	2		γγ		8		ο	1440.
5	||	22	3	γγ	6	8	γ	ο	1444.
6	|	2	33	γγ	6	8	γ	ο	c. 1420-44.
7	|	22	3	γγ	6	8	γ	ο	c. 1456.
8	|	2	3	γγ	6	8	γ	ο	XV.
9	|	2	3	γγ	6	8	γγ	ο	XV.
10	||	2	333	γγ	6	88	γ	ο	XV ¹ .
11	|		5			8			1473.
12	|					8			1478.
13	|	2	2	γ	6	8	γ	ο	c. 1475.
14	||	222	33	γγ	6	8	γγγγ	ο	c. 1476.
15	|			γγ		8		ο	1478.
16	|			γγ		8		ο	1480.
17	|	2	33	γγ	66	8	γ	ο	c. 1490.

XV. BRITISH MONUMENTAL, ETC., 1545-1592.

1	1	4	SS			1515.
2	1		II	7		1552.
3	1	S	S			1577.
4	1		S	>	8	1587.
5	1	S	I		9	1592.

XVI. BRITISH BRASSES.

1	1				^	1447.
2	1	2	II		^	1454.
3					^	1472.
4	1					1481.
5	1					1487.
6	1					1489.
7	1					1493.
8	1					1510.
9	11					1510.
10	1					1538.

XVII. BRITISH BELLS.

1	1			6		1516.
2	1	2				1523.
3	1					1540.
4	1					1546.
5	1					1587.

XIV. BRITISH MONUMENTAL, XIII-1537.

1	11	7	3	2	45	6	^	88	9	0	XIII-XIV.
2	1			2	5			8			1445.
3	1			2							1448.
4	11			2	S		7			0	1470.
5	1			2			^	8			1487.
6	1			2			^				1487.
7	1			2							1493.
8	1			2							1493.
9	1			2							1494.
10	1			2							1498.
11	1			2							1503.
12	1			2							1504.
13	1			2							1509.
14	1			2							1514.
15	11			2							1524.
16	1			2							1525.
17	1			2							1527.
18	1			2							1531.
19	1			2							1531.
20	1			2							1537.
21	1			2							

XVIII. GERMAN. MONUMENTAL, 1388-1477.

[illegible]

XIX. GERMAN: MONUMENTAL, ETC., 1477-1495.

[illegible]

XXI. GERMAN MONUMENTAL, ETC., 1504-1520

1	1						1504.
2	1						1505.
3	1						1505.
4	1						1505.
5	1						1506.
6	1						1506.
7	1						1506.
8	1						1506.
9	1						1506.
10	1						1507.
11	1						1507.
12	1						1508.
13	1						1509.
14	1						1510.
15	1						1510.
16	1						1511.
17	1						1513.
18	1						1513.
19	1						1513.
20	1						1516.
21	1						1520.
22	1						1520.
23	1						1520.

XX. GERMAN MONUMENTAL, ETC., 1495-1503

1	1						1495.
2	1						1496.
3	1						1497.
4	1						1497.
5	1						1497.
6	1						1497.
7	1						1497.
8	1						1497.
9	1						1498.
10	1						1499.
11	1						1499.
12	1						1499.
13	1						1501.
14	1						1501.
15	1						1501.
16	1						1502.
17	1						1502.
18	1						1502.
19	1						1502.
20	1						1502.
21	1						1502.
22	1						1502.
23	1						1503.

XXII. GERMAN MONUMENTAL, ETC., 1521-1544.

[illegible]

XXIII. GERMAN SEALS, 1331-1453.

1	11		3	5				1331.
2	1		7					1351.
3	1		3		6	8		1368.
4	1		3		6		9	1369.
5	1			2				1405?
6	11	2						1412.
7	1	2		3				1425.
8	1	2					9	1429.
9	1		3					1433.
10	1		33					1433.
11	1		3		6			1436.
12	1			22				1440.
13	1			2				1444.
14	1			2				1444.
15	1			2				1444.
16	1			2				1446.
17	1			2				1446.
18	1			2				1450.
19	1			2				1450+.
20	1	2		2				1452.
21	1		3					1453.

XXV. GERMAN SEALS, 1479-1504.

1	1		2	2	1479.
2	/			8	9
3	||			8	0
4	|	3	2	8	
5	|		1	8	
6	|			8	
7	|			8	
8	|			8	
9	|			8	
10	/			8	
11	|			8	9
12	|			8	9
13	|			8	9
14	|		2	8	9
15	/				9
16	|		3		9
17	|		2		
18	|		3		0
19	|		3		0
20	|		3		0
21	|				0

XXIV. GERMAN SEALS, 1453-1477.

[illegible]

XXVI. GERMAN SEALS, 1507-1527.

1	1				5	7		0	1597.
2	1			x	5				1514.
3	7				5	2			1517.
4	11						99		1519.
5	1		Z		5	7			1527.

XXXVII. GERMAN: VARIOUS.

1	1				2	3	2	2	6								1434.
2	1						2	2									1444.
3	1							2	6								1446.
4	1							2									1448.
5	1		2	3	3	2	2	2	6	^	8	2	0				1463.
6						2	2	2	6								1466.
7	1		2			2	2	2				9					1491.
8	1						2	2				9					1495.
9	1						4	2				9					1499.
10	1							5			8		0				1508.
11	1							5		7							1517.
12	1		2					5	6								1526.
13	1			3				5					0				1530.
14	1			3				5									1531.
15	1		2	3		2	2	5	6	77			0				1573.
16	2							3	6			9					1596.

XXXVIII. GERMAN PAINTINGS, 1435-1508.

1	I		3	2	6	2	6	9	1435?
2	I		2	2	2	2	2	9	1446.
3	I		2	2	2	2	2	9	1449.
4	I		2	2	2	2	2	9	1483.
5	I		2	2	2	2	2	9	1487.
6	I		2	2	2	2	2	9	1488.
7	I		2	2	2	2	2	9	1491.
8	I		2	2	2	2	2	9	1493.
9	I		2	2	2	2	2	9	1498.
10	I		2	2	2	2	2	9	1499.
11	I	2	4	4	4	4	4	9	1503.
12	I		3	3	3	3	3	9	1504.
13	I		3	3	3	3	3	9	1506.
14	I		3	3	3	3	3	9	1506.
15	I		3	3	3	3	3	9	1507.
16	I		3	3	3	3	3	9	1507.
17	I		3	3	3	3	3	9	1507.
18	I		3	3	3	3	3	9	1507.
19	I		3	3	3	3	3	9	1507.
20	I	2	7	7	7	7	7	9	1508.
21	I		5	5	5	5	5	9	1508.

XXIX. GERMAN PAINTINGS, 1509-1529.

1	7				5				0	1509.
2	//				5				0	1510.
3	|||				5					1511.
4	|||				5					1511.
5	|||				5					1511.
6	|||				5					1511.
7	||				5					1512.
8	||				5					1512.
9	||				5					1512.
10	||				5					1514.
11	I				5					1514.
12	1				5					1515.
13	1				5					1515.
14	||				5					1515.
15	||				5					1516.
16	||				5					1519.
17	1				5				0	1520.
18	1				5					1526.
19	1				5					1528.
20	/				5					1528.
21	1				5					1529.

XXX. GERMAN PRINTED BOOKS,
WOODCUTS, ETC.

1	1				22	6	Λ	8	9	0	1464.
2	2				2	6	Λ	8	9	0	1470.
3	3	3			2	7	Λ	8	9	0	1470.
4	4				2		Λ	8		0	1471.
5	5	3			2	4	Λ	8	99	0	alt. Oct. 1473.
6	6	3			2	44	Λ	8	9	0	1474.
7	7	33			2	77	Λ	88	9	0	1477.
8	8	7			2	5	7	8	9	0	1479.
9	9				2			8			1481.
10	10				2			8			1482.
11	11	33			44	66	77	88	99	0	1488.
12	12				4	6			9		1496.
13	13				2				99		1499.
14	14				2				2		1499.
15	15				4				9		1499.
16	16	3			4	6	7	8	9	0	1500.
17	17	3			24	6	Λ	8	9	0	1503.
18	18				4	5				0	1504.
19	19	33			24	66	77	88	99	0	1507.
20	20				5	5		8		0	1508.

XXXII. GERMAN COINS, 1505-1514.

1	I			5				0	1505 Hungary.
2	I			7	6			0	1506 Goslar.
3	I			5	6			0	1506 Bavaria.
4	I			5	6			0	1506 Baden.
5	I			5	6			0	1506 Lübeck.
6	I			7		7		0	1507? Hungary.
7	I			5		7		0	1507 Frankfurt a. M.
8	I			5			8	0	1508 Isny.
9	I			7					1511 Bremen.
10	I			5					1512 Münsterberg.
11	I			5					1512 Lorraine.
12	I			5					1513 Salzburg.
13	I			5					1514 Hungary.
14	I			5					1514 Nördlingen.

XXXI. GERMAN COINS, 1484-1504.

1	I			4					1484 Austria.
2	I			4	6				1486 Austria.
3	I			2					1489 Hungary.
4	I			4					1489 Cologne.
5	I	Z		2					1492 Frankfurt a. M.
6	I	2		2					1492 Aachen.
7	I			2					1497 Brandenburg-Anspach.
8	I			2					1499 Bremen.
9	I			7					1500 Jülich u. Berg.
10	I			5					1501 Brandenburg-Anspach.
11	I	Z		7					1502 Lübeck.
12	I			2					1504 Mainz.
13	I			2					1504 Hesse.
14	I			4					1504 Brandenburg-Anspach.
15	I			2					1504 Salzburg.

XXXV. LOW COUNTRIES: COINS, ETC.,
1474-1482.

1	1	1474.
2	1	1474.
3	1	1474.
4	1	1475.
5	1	1475.
6	1	1475.
7	1	1476.
8	1	1477.
9	1	1477.
10	1	1478.
11	1	1478.
12	1	1479.
13	1	1480.
14	1	1480.
15	1	1481.
16	1	1482.

XXXIII. GERMAN MEDALS.

1	1	1499.
2	1	1507.
3	1	1508.
4	1	1512.
5	1	1514.
6	1	1521.

XXXIV. SWISS COINS

1	1	1424	St. Gall.
2	1	1491	Basel.
3	1	1492	Basel.
4	1	1492	Bern.
5	1	1493	Basel.
6	1	1493	Bern.
7	1	1494	Bern.
8	1	1498	Sitten.
9	1	1499	Basel.
10	1	1501	Bern.
11	1	1504	St. Gall.
12	1	1505	St. Gall.
13	1	1512	Zürich.
14	1	1516	Basel.
15	1	1527	St. Gall.
16	1	1528	Sitten.
17	1	1532	Schaffhausen.

XXXVI. LOW COUNTRIES:

COINS, 1482-1490.

[illegible]

XXXVII. LOW COUNTRIES:

COINS, ETC., 1491-1505.

[illegible]

XXXVIII. LOW COUNTRIES:
COINS, ETC., 1506-1596.

[illegible]

XXXIX. LOW COUNTRIES: PAINTINGS.

1	11	2	3	8					0	1432.
2	1	2	3	3						1433.
3	1		}	2 ²						1434.
4	11		33	x					8	1438.
5	1			x		G				1446.
6	7	2		Q		G				1462.
7	7			x			^			1474.
8	11			4				S		1514.
9	11							3		1516.
10	1	2	3					5		1523.
11	7	2						4	8	1528.

XL. FRENCH MEDALS.

1485.								
1486.								
1493.								
1494.								
1499.								
1512.								
1512.								
1518.								

XLII. ITALIAN PAINTINGS, 1521-1531.

1	11	2			8			1521.
2	1	22		4	5			1522.
3	1	2	3		5			1523.
4	1	2			5	6		1526.
5	(1)		3		5			1531.

XLIII. ITALIAN MAJOLICA.

1	1	22	2	4	4		8	99	0	mid. XV.
2	1			4	4		2	8	0	1487.
3	1			4	4		8	2	0	1489.
4	1			4	4		8	2	0	1491.
5	1			4	4		8	2	0	1493.
6	11		3	4	4		8	2	0	1503.
7	11	2					8	9	0	1508.
8	1								0	1509.
9	1		3						0	1513.
10	1	2	3						0	1513.
11	11			4			8			1518.
12	1	2								1524.
13	1	2	6							1526.
14	1	2					8			1528.
15	1	2					8			1529.
16	1		3						0	1530.

XL. ITALIAN PAINTINGS, 1472-1516.

1	1	2		4		7			1472.
2	1		3	4		7			1473.
3	1			44		7			1474.
4	1			4	5	7			1475.
5	1			4		77			1477.
6	1			4		7			1477.
7	1			4	5		8		1485.
8	1			4		7	8		1487.
9	1			4			8	9	1489.
10	1			4		6			1496.
11	1			4		7			1497.
12	1			4		7			1497.
13	1			4				9	1499.
14	1	2							1502.
15	1	2			5				1502.
16	11				5				1510.
17	11				5				1511.
18	11				5				1511.
19	1				55				1515.
20	11				55				1515.
21	1				5	6			1516.

XLV. ITALIAN MEDALS, 1498-1519.

1	I	Z		4	6					c. 1498.
2	I	Z								1499.
3	I			54						1502.
4	I		3	5						1503.
5	I			5						1505.
6	I		3							1513.
7	I			55						1515.
8	I			5	6					1516.
9	I		3	5		8				1538.
10	I		3	5					2	1539.
11	I		3	5					2	1539.
12	I			4						1510.
13	I	~		4						1512.
14	I			4					2	1519.

XLVI. ITALIAN: VARIOUS.

1	I	Z	3	4						1423.
2	II	~		4		7	8			1428.
3	I			4	5			9		1459.
4	I			4		7				1471.
5	I			4		>				1474.
6	I			4	5			9		1495.

XLIV. ITALIAN MEDALS, 1390-1497.

1	I									1390.
2	I								2	1393.
3	I			4		7			2	1417.
4	I			4	6					1446.
5				4		7				1447.
6	I			4			8			1448.
7	I								2	c. 1460.
8	I			4	6					1461.
9	I			4	6					1464.
10	I			4		7				1470.
11	I	Z		4		7				1472.
12	I			8		^			2	1479.
13	I			8		7			2	1479.
14	I			4			8			1481.
15	I			4			8			1481.
16	I			4	5		8			1485.
17	I			4	5		8			1485.
18	I			4			8		2	1489.
19	I			4	5				2	1495.
20	I			4		7			2	1497.

XLVII. ITALIAN PRINTED BOOKS, ENGRAVINGS, ETC.

1	I	Z	3	4	5	6 _{int}	7 _{int}	8	9	0	c. 1467
2	I	Z	3	4	5	6	7	8	9	0	c. 1477
3	I	2	35	4	5	6	7	8	9	0	1478.
4	I	2	3	4	5	6	7	8	9	0	1479.
5	I	2	3	4	5	6	7	8	9	0	1484.
6	I	2	3	4	5	6	7	8	9	0	1491.
7	I	2	3	4	5	6	7	8	9	0	1492.
8	I				7				9	0	1509.

XLVIII. INSCRIPTIONS FROM RHODES.

1	I			4	5	6	7	8	9	0	1447.
2	I			4	5		7		9	0	1457.
3	I			4	5			8	9	0	1459.
4	I			4	5				9	0	1489.
5	I	2		4	5				9	0	1490.
6	I			4	5				9	0	1492.
7	I			4	5				9	0	1494.
8	I			4	5				9	0	1495.
9	I			4	5		7		9	0	1497.
10	I	2			5					0	1502.
11	I				5	6				0	1506.
12	I				5				9	0	1509.
13	I	2			5					0	1511.
14	I				5						1515.
15	I				5		7				1517.
16	I				5			8			1518.
17	I		3		5				9		1519.
18	I	2			5					0	1520.

XLIX. GERMAN: SUPPLEMENTARY.

1	I	33					8			1383
2	I							9		1419.
3	I						8			1484.
4	I	Z						99		1492.
5	I							99		1493.
6	I					^		9		1497.
7	I						8			1498.
8	I								5	1514.

L. MISCELLANEOUS AND SUPPLEMENTARY.
XIII-XV CENT.

1	I	Z	3	4	5	6	7	8	9	0	c. 1260?
2	I	2	3	4	5	6	7	8	9	0	1276.
3	I	2	3	4	5	6	7	8	9	0	1326.
4	I	2	3	4	5	6	7	8	9	0	1342.
5	I	2	3	4	5	6	7	8	9	0	1391.
6	I	2	3	4	5	6	7	8	9	0	1410.
7	I	2	3	4	5	6	7	8	9	0	1417.
8	I	2	3	4	5	6	7	8	9	0	1444.
9	I	2	3	4	5	6	7	8	9	0	1451.
10	I	2	3	4	5	6	7	8	9	0	1451.
11	I	2	3	4	5	6	7	8	9	0	1452.
12	I	2	3	4	5	6	7	8	9	0	1453.

LI. MISCELLANEOUS AND SUPPLEMENTARY.
XV-XVI CENT.

1	1	22	3	4	5	6	7	8	9	0	1461.
2	1			4		6	7				1467.
3	1			4			7			0	1470.
4	1			2				8			1485.
5	1			8				8	9		1489.
6	1	2	3	2	5	6	Λ	8	9	0	1491.
7	1	2		2					9		1492.
8	1	2		2					9		1492.
9	1			2			Λ		9		1497.
10	1			2			Λ		9		1497.
11	1			2				8	9		1498.
12	1			2					9		1499.
13	1		3		5						1513.
14	1	22			5						1522.
15	1	?			5	6					1526.
16	/		3		5					0	1530.
17	11		3		1						1531.

DESCRIPTION OF THE TABLES

TABLE I. MSS.: EARLIEST FORMS AND BOETHIAN APICES.

1. 976. Escorial d I 2. Codex Vigilanus, written in the year 976 in the monastery of Albelda near Logroño. See P. Ewald, *Neues Archiv der Gesellsch. f. ält. deutsche Geschichtskunde*, viii (1883), p. 357. The forms are described as the Indian figures, quibus designant unumquemque gradum cuiuslibet gradus. Quarum hec sunt form(e): 987654321. Ewald connects the form for 5 with the Roman V. Since he does not say that the year 976 is that of the Spanish era, we must assume that it is of the usual Christian era.

2. X c. Zürich, Universitätsbibl. (St. Gall MS.). See Pertz, *Archiv*, vii (1839), p. 364. Cp. G. Friedlein, *Gerbert, die Geometrie des Boethius und die indischen Ziffern* (Erlangen, 1861), pl. vi. 13. From fol. 50' of Angilberti carmen de Karolo M. Pertz describes these as the earliest Arabic numerals known to him.

3. 1077. Vat. 3101. A. Berthelot, *Mélanges de l'École franç. à Rome*, v (1885), p. 193.

4, 5. XI c. Erlangen (ex Altdorf), 288. See Friedlein's *Boethius* (1867), p. 397 (forms used in the text).

of the MS.); also Friedlein, *Gerbert*, &c., pl. vi. 1, 2; Woepcke, *Mém. sur la propagation des chiffres indiens* (Paris, 1863), p. 49 (after Mannert); H. Hankel, *Zur Gesch. d. Math.* (1874), p. 325; Cantor, *Math. Beiträge zum Kulturleben der Völker* (1863), p. 200. 6, 7. XI c. Chartres. See Chasles, "Aperçu hist. sur l'origine et le développement des méthodes en Géométrie" (*Mém. de l'Acad. roy. de Bruxelles*, xi, 1837, p. 467). See also Friedlein, *Gerbert*, &c., pl. vi. 3, 4. 8. XI c.-XII c. Reg. Vat. 1661. Liber Abaci. A. Berthelot, *Mélanges de l'École franç. à Rome* (1885), p. 193. Dated XI c. by Pertz, XII c. by Berthelot. 9, 10. XII c. (beginning). Paris, anc. fonds latin no. 7193 (ex Colb. 4313). De abaco. Natalis de Wailly, ii, pl. vii a. 11. XII c. (?) B.M., Arund. 343 (original burnt in 1865; the date cannot therefore be verified). From T. Wright, *Essays on Archaeological Subjects*, ii, p. 65. 12. XII c. Vat. 3123. A. Berthelot, *Mélanges de l'École franç. à Rome* (1885), p. 193. 13. XII c. (2nd half). Bibl. Alessandrina (Rome), no. 171, fol. 1. The apices of Boethius used without abacus, and with position values. E. Narducci, *Mem. Accad. Lincei*, Cl. sci. fis. &c. (1877), p. 503 f. 14. c. 1200. Louvain. See Lethaby, *Proc. Soc. Ant.* 1906 (xxi), p. 201. 15. c. 1200. Paris. MS. Fonds St. Victor 533. Regula Abaci. See Chasles in *Comptes Rend. de l'Acad. des Sciences*, xvi (1843), p. 238. 16, 17. Paris, 7377 c and 7185. Boethius. These series have been published by Cantor in *Zeitschr. f. Math. u. Physik*, iii, pl. iv, and in his *Math. Beiträge zum Kulturleben der Völker* (1863), p. 206 (fig. 41). The variation between the facsimiles throws doubt on their accuracy. Cp. also Friedlein, *Gerbert*, &c., pl. vi. 5 and 6. Date and provenance are not stated. 18. Date not ascertained. From a MS. belonging to Dr. Mead. See *Philosophical Transactions*, 1735, plate ii (at p. 122). 19, 20. XV c. Vat. 4539: table following letter to Constantine on the abacus; and forms from text of Liber Abaci. A. Berthelot, *Mélanges de l'École franç. à Rome* v (1885), p. 193. 21. Temp. Leonis X. B.M., Lansd. 842 B, fol. 57 b. Italian. De ratione abaci.

TABLE II. MSS.: XII-XIII CENT.

1. XII c. (early). Vat. 1890, f. 140; fragment of Conradi Urspergensis chronicon, probably written in neighbourhood of Salzburg. Pertz, *Archiv d. Gesellsch. f. ält. deutsche Geschichtskunde*, v (1824), p. 160 and pl. i. 4. Wattenbach, *Anleitung zur latein. Paläographie*¹, p. 102. 1. Prou, *Manuel*, p. 156. 2. 1143. Vienna, Bibl. Palat. Computus. T. Sickel, *Mon. Graph.*, Fasc. viii, Tab. 16; *Wiener Sitzungsber.* xxxviii. 171. 3. End of XII c.—beg. of XIII c. Munich, cod. lat. 14733 (cod. Emmeran. G. 117). Böhmer, *Fontes rer. Germ.* iii, p. lxxv; Pertz, *Mon. Germ.* SS. xvii, p. 578 and plate at p. 184; Wattenbach¹, p. 102. Written by Hugo of Ratisbon, who appears as a witness 1207-1216. 4. c. 1200. Heidelberg (Salem), ix. 23. Cantor, *Zeitschr. f. Math. u. Physik*, x. 1; Wattenbach¹, p. 102. 5. XII c. (end). W. Schum, *Exempla Codicum Amplonianorum Erfurtensium* (Berlin, 1882), no. xiii, p. 7. From the astronomy of Albumazar. Probably German. 6. XII c. (second half). Berlin, cod. lat. fol. 307, ff. 6, 9, 10, 28. Astronomical tables. French. See Bethmann in Pertz, *Archiv*, viii. 832; Wattenbach¹, p. 103; V. Rose, *Verzeichnis d. lat. Hdschr. der kgl. Bibl. zu Berlin*, ii, p. 1177, no. 956. The figure which is given by the earlier authorities as 2 is interpreted by Rose as 4, and vice versa. So far as the 2 is concerned, the earlier interpretation is confirmed by the preceding MS. in this table and by Arabic analogy. Dr. Regling has very kindly examined the MS. for me, but this point was not in question at the time.

TABLE III. MSS.: XIII CENT.

1. XIII cent. (1st half). Trinity Coll., Camb. (M. R. James, *Catal.* ii, no. 940, p. 355). The numerals are given under the words *Igin*, *Andras*, *Ormis*, &c., with the Roman equivalents written after each. From drawing by Mr. Z. N. Brooke. 2. c. 1230-50. B.M., Eg. 2261, f. 225 b. Algorism. English. 3. XIII c. B.M., Add. 25031. English. 4. 1246. B.M.,

Royal 8 A. viii, f. 105. Note of purchase of the book. English. 5. XIII c. (about middle). B.M., Royal 3 A. v, f. 67 b. English. Dated by some to late XIII or early XIV. 6. XIII c. (2nd half). B.M., Arund. 292, f. 107 b. English. The numerals are drawn laboriously, as if they were unfamiliar. 7. XIII c. (2nd half). B.M., Arund. 332, f. 68. Joh. de Sacrobosco. English (Durham). 8. XIII c. (after 1264). B.M., Add. 27589, f. 28. Algorism. English. 9. c. 1280. S. C. Cockerell Collection, English Bible (probably York). Cp. *Proc. Soc. Ant.* xxi (1906), p. 201 (where the forms have been somewhat schematized). 10. XIII c. (late). B.M., Royal 12 E. xxv, ff. 32-59. This scribe uses Roman numerals for all above 9, also sometimes ix. The early form of 2 occurs only once (f. 33). Probably English. 11. XIII c. (late). B.M., Harl. 2385, ff. 26-31 b. Probably English. 12. XIII c. (late). B.M., Royal 12 E. xxiii, f. 2. English. 13, 14. XIII c. (end). B.M., Royal 12 C ix. Joh. de Sacrobosco, *Computus*. Probably English. The diagrams (14) are in a different hand, perhaps that of a more skilled mathematician than the copyist of the text.

TABLE IV. MSS.: XIII CENT. (*continued*).

1. XIII c. (beg.). B.M., Royal 8 B. xix. English or French. Contemporary quire-numbering. The first 13 quires (of 8 leaves each) are numbered i, ii, . . . xiii on the last page of each quire; then come 410 = 14 (f. 112 b), 510 (f. 120 b), 610 (f. 128 b). 2. XIII c. (early). B.M., Royal 15 B. ix, f. 77 b. Algorism. English or French. Note the Roman V. By some authorities dated as early as XII cent. 3. XIII c., before 1271. Paris, anc. fonds latin, 7198; kalendar on f. 8. French. N. de Wailly, *Él. de Pal.* pl. vii. Cp. Lethaby, *Proc. Soc. Ant.* 1906 (xxi), p. 201. 4. XIII c. (end). B.M., Harl. 3647, ff. 2 foll. (*computus manualis*), 17 (*algorismus*). French. 5, 6. XIII c. (about end). B.M., Harl. 4350, ff. 16, 6 b, &c. French. 7. 1256. Paris, lat. 16334 (Analysis and index of works of St. Augustine). Prou, *Manuel*, pl. xviii. No instance of o occurs in the facsimile. 8. XIII. c. Siena (Bibl. Com.). *Anzeiger für Kunde d. Deutschen Vorzeit*, xviii (1871), p. 261; W. Wattenbach, *Anleitung zur lateinischen Paläographie*⁴, p. 102. 5; Prou, *Manuel*, p. 156. 9, 10. 1272. B.M., Harl. 531, ff. 1, 7, 30, 32 (dates and numerals in text of Sacrobosco). German. 11. c. 1260-1270. B.M., Royal 12 E. iv. Provenance uncertain. Evidently an exercise in ornamental figuring. A peculiar form of 2 occurs on f. 4 b. 12. XIII c. Libri, Catalogue (Sotheby's, 1859), p. 145, no. 665, pl. xxiv and xxix. *Mathematici veteres*. Not of 1170 as stated. Probably English. Mixture of Arabic and Latin numerals. Wattenbach⁴, p. 102.

TABLE V. MSS.: XIII-XIV CENT.

1. XIII c. (end). B.M., Royal 7 F. viii, ff. 182-188. Works of Roger Bacon. English, after 1268, probably towards end of XIII c. Astronomical tables. More than one system of numerals used; it would appear that we have tables compiled from various sources. 2. Beginning of XIV c. (temp. Edw. I-II). B.M., Cotton Vesp. A. ii, fol. 2. "Calend. Rogeri Baconis." Probably English. Might conceivably have been written in the closing years of the XIII cent., but beginning of XIV is much more probable. 3. Late XIII or early XIV (more probably the former). B.M., Royal 8 C. iv, f. 36 b. Joh. de Sacrobosco. Probably English. 4. c. 1300. B.M., Add. 35179. English. 5. c. 1300. B.M., Royal 12 F. xv, f. 143. Probably English. Evidently an exercise in writing the numerals. 6. Early XIV c. (possibly late XIII c.). B.M., Cotton Vit. A. i, f. 25 b. Carmen de Algorismo. English. 7. Late XIII or beg. XIV c. B.M., Royal 10 B. vii. Fishacre. English. See ff. 6 b foll., 226 b foll., 285, 327, 380. Shows the transition from the old to the modern 2. 8. End of XIII or beg. of XIV c. B.M., Harl. 505, ff. 5 b-14. English. 9. End of XIII or beg. of XIV c. B.M., Harl. 3735, f. 51. Algorism. Probably French. 10. XIII-XIV c. B.M., Add. 30380. Joh. de Sacrobosco. German.

TABLE VI. MSS.: XIV CENT. ENGLISH.

1. c. 1320-1330. B.M., Royal 12 E. xxi, ff. 74 foll. English. 2. XIV c. (early). B.M., Sloane 2478, ff. 15, 15 b, 27, 35 b. English. 3. XIV c. B.M., Royal 13 B. vi. Pagination. Later form of 2 occurs on f. 302. English (Lincoln). 4. XIV c. (early). B.M., Royal 12 E. 1, ff. 159-165 b. English. 5. 1334. B.M., Royal 2 C. v. Note (English) of the lending of the volume (Nich. de Gorram, Postille in Psalterium) to Mag. Th. Duraunt. 6. XIV c. (early). B.M., Harl. 13, ff. 31, 75. Astronomical tables. English. 7. c. 1330-1340. B.M., Harl. 7322, ff. 152 foll. English. 8. XIV c. B.M., Harl. 3353, f. 76 b. Algorism. English. 9. XIV c. (mid.). B.M., Harl. 2316, ff. 2 b-11 b. English. 10. XIV c. B.M., Cotton Cleop. B. vi, f. 237. Sacrobosco. Probably English. 11. XIV c. B.M., Royal 7 D. xxi, f. 174 b. Algorism. English. 12. c. 1350, probably. B.M., Royal 12 F. xvii. English. 13, 14. Late XIV or early XV. B.M., Cotton Vesp. E. vii, f. 5 (Diameter terrae); f. 9, Kalendar by Thomas Somur from nativity of Richard II; therefore perhaps soon after 1367, but may be early XV. 15. 1380. B.M., Royal 2 B. viii, ff. 1, 2 b. Psalter, with Kalendar by John Somour, composed 1380. English. 16. 1381. B.M., Burn. 310. Gesta Britonum of Nennius, written at Finchale by a Breton, Guillelmus, du Stiphel. English. 17. XIV c. (late). B.M., Harl. 80, f. 46 b. English. 18. XIV c. (first half). Cod. Magl. Cl. vii, no. 17, f. 33 b; on a tablet held by figure of 'Arismetica'. Perhaps English. Formerly assigned to XI c. (!). C. Paoli, *Arch. Stor. Ital.* (IV Ser., vol. 7) 1881, pp. 277-280.

TABLE VII. MSS.: XIV CENT. FRENCH, GERMAN, ITALIAN, ETC.

1. XIV c. (early). B.M., Burn. 275, f. 667 (= 336). Illumination (first row). French. Other forms (second row) in the text passim. 2. 1301 (just after). B.M., Royal 12 C. xvii. Algorism. French. 3. 1311. B.M., Sloane 3097, ff. 61-63 and elsewhere. Liber de conservacione vite humane, completed die innocencium 1311 (f. 61). French. 4. XIV c. (late). Paris, anc. fonds latin 7277. N. de Wailly, ii, pl. vii c. M. Omont writes that the MS. is after 1367 and before 1420, and was written in the N. of France or neighbourhood thereof, probably at Tournai. 5. XIV c. (early). B.M., Add. 11284, ff. 2-8. Written at Cambron Abbey in Flanders. Both forms of 2 occur, but the old form more commonly. 6. 1303. Sigmaringen MS. *Anzeiger f. Kunde d. Deutschen Vorzeit*, 1867, p. 239; Wattenbach ⁴, p. 102. 7. XIV c. (early, after 1303). B.M., Arund. 268, ff. 41 b-67. Mathematical treatise. German. 8. c. 1350. Salzburg MS. (cod. Iuvaviensis S. Petri v^a 7, fol. 124 b). Treutlein, *Gesch. uns. Zahlzeichen*, plate, no. 8. 9. XIV c. (end). Berlin, lat. fol. No. 322. Wattenbach ⁴, p. 102, no. 7; Prou, *Manuel*, p. 156. 10. XIV c. (early). B.M., Royal 12 C. xviii. Astrology. Provenance uncertain (some northern country). 11. c. 1325-30. Icelandic. Algorismus. Hauksbók, ed. by Finnur Jonsson, p. 417. 12. 1315 or 1325. Endorsement on an English warrant dated Feb. 4, 1325; written (13 x 5) by an Italian. Possibly a mistake for 13 xx 5. *Arch. Journ.* vii, p. 85. 13. 1327. B.M., Arund. 115. Italian. 14, 15. XIV c. B.M., Harl. 3814, ff. 4, 3 b, 5 b, 11 b. Probably Italian. 16. XIV c. (beg.). Florence, Bibl. Naz., fondo Conventi soppressi, Badia Fior., 2616. C. 1, from which MS. Boncompagni edited the Liber Abaci of Leonardo of Pisa. *Anzeiger f. Kunde d. Deutschen Vorzeit*, 1871, 261, and private communication from Sig. Enrico Costa. 17. 1382. B.M., Add. 37495. Italian. Geoffrey de Vinsauf.

TABLE VIII. MSS.: XV CENT. ENGLISH.

1. XV c. (beg.). B.M., Cotton Vit. C. xiv, ff. 124 foll. English. Ornamental style. 2. XV c. (early, Hen. V at latest). B.M., Royal 12 E. xxii. English. The 1 is exceptional. 3. c. 1410-1415. B.M., Add. 33784, ff. 4-7. English. 4. XV c. (early). B.M., Add. 24194. Chapter numberings and index. English. 5. XV c. (early). B.M., Harl. 5369, f. 270 b. 6. XV c. (1st half). B.M., Add. 17723. English. 7. XV c. (1st half). B.M.,

Harl. 1288, ff. 34-59. English. 8. 1418-1431. B.M., Eg. 889, f. 52 b. English. 9. XV c. (prob. 1st half). B.M., Sloane 513, f. 58. English. 10. 1431. B.M., Harl. 937. Kalendar. English. 11. After 1431. B.M., Harl. 5396, ff. 207 b foll. English. 12, 13. 1429-1446. B.M., Add. 7096, ff. 71 ff. (Curteys, *Bury St. Edmunds Register*) and Add. 14848 (do., index). English. 14. c. 1445. B.M., Harl. 3742, f. 227 b (Apologetica defensio astronomice veritatis, by Peter Card. Cambrai), ff. 238 b, 239 (John of Norfolk in artem progressionis). English. 15. 1445. B.M., Add. 11814, at end. English. 16, 17. 1449, 1454. B.M., Royal 10 B. vii. Cautions. English. 18. c. 1456. B.M., Sloane 4029, ff. 1-183 b. English. 19. XV c. (mid.). B.M., Sloane 1616, ff. 125 b, 129 b, and chapter numberings. Probably English. 20. XV c. (mid.). B.M., Royal 6 E. iii. Pagination. English. Cp. Sloane 1616. 21. XV c. (mid.). B.M., Arund. 384, ff. 95 foll. English. 22. XV c. (mid.). B.M., Cotton Jul. D. vii. f. 45 b. English.

TABLE IX. MSS. : XV CENT. ENGLISH, ETC.

1. XV c. B.M., Add. 24059, f. 22 b. Algorithm. English. 2. XV c. B.M., Royal 12 E. i, f. 8 b. Algorithm, doubtless English. 3. XV c. (c. 1450-60). B.M., Sloane 213, f. 124. English accounts-table. 4. XV c. B.M., Royal 10 B. ix, ff. 61 b, 67, 68, 122, 122 b. Paragraph numbering and dates (1451-1459). English. 5. c. 1460. B.M., Royal 8 D. i, f. 216. English. 6. 1467. B.M., Royal 6 D. ii. English. Cp. Casley, *Catalogue*, pl. xvi. 7. 1482-1485. B.M., Royal 12 G. i. Astronomical tables by Lewis Caerleon. English. 8. 1482 (?). Univ. of Edinburgh. Scotch (?) Kalendar, calculated for 1482. J. Leslie, *Philosophy of Arithmetic*, p. 115. 9. 1483, 1485, 1488. B.M., Royal 7 E. v. Cautions, English. 10. 1488. B.M., Royal 14 C. vii, fly-leaf. Cp. Casley, pl. xvi. English cursive. 11. Betw. 1427 and 1460. Paris, anc. fonds latin, no. 7295, f. 86 b. Astronomical MS. (provenance not stated). N. de Wailly, ii, pl. vii d. 12. XV c. (1st half (?)). Kalendar. From T. Wright, *Essays*, ii, p. 71, no. 3. The reference "B.M. Sloane 2927" there given is wrong, and I have not been able to find the MS. 13. 1454. "Ex cod. S. Germani, no. 531." Mabillon, *de Re Dipl.* t. xv, p. 373 (ed. 1681). 14. 1460. "Ex cod. S. Germani, de imit. Chr. Magistri Iohannis Gerson." Mabillon, *ibid.*

TABLE X. MSS. ETC. : XV CENT. GERMAN.

1. c. 1422. B.M., Add. 15107, f. 207 b, &c. Written at Lauben, near Görlitz in Saxony, in 1422. 2. c. 1420. B.M., Add. 15107, f. 215. Written at Lauben, near Görlitz in Saxony, about 1420. 3, 4. Betw. 1426 and 1430. B.M., Add. 15108, ff. 4 b, 90. German (Erfurt). 5. 1430. Libri, *Catalogue of the collection of manuscripts* (Sotheby's, 1859), No. 936. German, 26 June, 1430. 6. c. 1442. Plimpton Coll. Sacrobosco. German, copied by Hainricus Muglinch. The numerals are from a coloured illustration, representing Algorismus teaching a pupil the numerals from a sort of hornbook. D. E. Smith, *Rara Arithm.* p. 450 and pl. viii. 7. XV c. B.M., Add. 15107, ff. 36, 36 b. German. 8. XV c. B.M., Harl. 3843, f. 119. Sacrobosco. German. 9. XV c. B.M., Harl. 3843, ff. 25 a, 39 b, 40, 53 b, 99 b. Probably about 1458 (which date occurs frequently). The fork to the right-hand leg of the four is unusual. German. 10. 1468. B.M., Arund. 148. German (Erfurt). Postille Nicolai de Lyra, ff. 106 b, 192, 236 b, 283 b, 391 b. On fol. 192, 1458 is perhaps a blunder for 1468, as all the MS. seems to be contemporary. 11. c. 1463-1473. B.M., Add. 19909, f. 236 b. German. 12. 1473. B.M., Add. 19909, f. 250 b. German. Herolt, *Promptuarium*. 13. 1480. Admonter Hüttenbuch. German. *M.C.C., N.F.* xx, p. 236. 14. XV c. Heidelberg (Pal. Germ. 342). German. From Wattenbach⁴, p. 102, no. 8. Cp. Prou, *Mannuel*, p. 156. Contemporary pagination. 15. 1493. Drawing by Albert Dürer, Albertina. Child Jesus holding globe. Lippmann, 450. 16. 1494. Drawing by Albert Dürer, Albertina. Bacchanal rout.

Lippmann, 454. 17. 1494. Drawing by Albert Dürer, Albertina. Battle between Tritons (after Mantegna). Lippmann, 455. 18. 1495. Drawing by Albert Dürer, Albertina. Venetian lady. Lippmann, 459. 19. 1497. B.M., Royal 6 A. viii, f. 121. Cp. Casley, pl. xvi. German. 20. 1498. Drawing by Albert Dürer, Albertina. Armed horseman. Lippmann, 461. 21. 1500. Drawing by Albert Dürer, Albertina. Nürnberg lady in ball dress. Lippmann, 464.

TABLE XI. MSS.: XV CENT. ITALIAN.

1. c. 1400-1416. B.M., Royal 12 D. vii. Italy or S. France (script looks Italian, initials and borders rather French). 2. 1427. B.M., Harl. 3161, f. 143 b. Bologna: Lactantius. 3. c. 1400-35. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 440. 4. 1440. B.M., Add. 14095, date at end. Italian. 5. 1444. B.M., Add. 18041, ff. 204 b, 205. Italian, begun at Perugia, finished at Pavia in 1444. 6. c. 1430. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 448. 7. c. 1456. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 460. 8. XV c. B.M., Add. 8784, ff. 50 b., 51. Italian. 9. XV c. B.M., Eg. 853. Italian. 10. XV c. (first half). B.M., Add. 10363. Italian. Treatise on Arithmetic. On ff. 223-229 are tables from 1418-1444. May have been written as early as 1418. 11. 1473. Left-handed. Drawing by Leonardo da Vinci (landscape). Uffizi. 12. 1478. Left-handed. Drawing by Leonardo da Vinci (Heads). Uffizi. 13. c. 1475. Plimpton Coll. Italian Arithmetic by Luca da Firenze. D. E. Smith, *Rara Arithm.* pp. 469, 471. 14. c. 1476. B.M., Add. 22317. Italian Kalendar, ff. 90 b foll. In this MS. the S-shaped form of five occurs exceptionally (e.g. f. 98, f. 103). 15. 1478. B.M., Add. 18041. Letter (Italian) from Pavia, inserted at f. 39. 16. 1480. B.M., Add. 35310, f. 366. Italian Breviary, written at Piacenza. 17. c. 1490. Plimpton Coll. Italian treatise on elementary mathematics. D. E. Smith, *Rara Arithm.* p. 476.

TABLE XII. MSS.: XVI CENT.

1. 1503. Owner's inscriptions in copies of the Confessionale of S. Antonino of Florence (of 1499) and Lochmaier's Parochiale (of 1493), in the Wolgaster Bibliothek, Greifswald (no. 456). In the second case the date is written 1053. Tracings communicated by Prof. Pernice. 2. 1504. Drawing by Albert Dürer, formerly in the Lanna Collection. Adam and Eve. From the Dürer Society's Reproduction. 3. 1505-1510. Various dates in vol. ii of the Works of Johann Butzbach (Bonn MS. 356). Fol. 1, incipit feliciter 1506 (for 1506); 48^b, a^o dñi 1560; 138^{ba}, 1505; 144^{ab}, 1508 (= 1510). Drawings communicated by Dr. H. Willers. See Böcking, *Opera Huttleri*, Supp. vol. ii, p. 438. 4. 1508. B.M., Royal 2 B. xiii. Note on fly-leaf. English. Casley, pl. xvi. 5. 1510. B.M., Royal 7 E. v. Caution. English. 6. 1513. Drawing by A. Dürer, Vienna Hofmuseum, Ambraser Sammlung (Siren as candle-bracket). *M. C. C.* viii, p. 127. 7. 1514. Drawing of a crozier (German). See *M. C. C.* iii, p. 190 and pl. vi. 8. c. 1515. Drawings attributed to Andreas Coner (Roman architectural sketchbook) in the Soane Museum. *Papers of the British School at Rome*, vol. ii (ed. T. Ashby). The hand is Italian. 9. 1517. Drawing by Wolf Huber in the Guildhall Library, London. From the Vasari Society's Reproduction, part III, 28. 10. 1523. Codex des Znayer Stadtrechtes. Illuminated. *M. C. C.* xv, p. 92 and pl. i. 11. c. 1524. Quodlibetarius, MS. Erlangen, no. 1463. From Friedlein, *Gerbert*, &c., pl. vi. 12. 1545. Plimpton Coll. Italian, written by "Ludovicho Alt de Salispurga". Business arithmetic. D. E. Smith, *Rara Arithm.* p. 485. The numerals are rather Italian than German. 13. c. 1560. Plimpton Coll. Italian commercial arithmetic (Florentine). D. E. Smith, *Rara Arithm.* p. 489. With the recumbent 8 compare the forms in a MS. of 1684 (*ib.* p. 441), or in the date 1628 as signed by the Dutch painter Pieter de Grebber on a picture at Stockholm (no. 448).

TABLE XIII. MSS.: GREEK.

1. XIV c. Neophytus. From Friedlein, *Gerbert, &c.*, pl. vi. 9. See P. Tannery, *Le scholie du moine Néophytos sur les chiffres Hindous. Rev. Arch.* iii. sér. 5 (1885), pp. 99-102, where this note on the ἀριθμοὶ ἰνδικοὶ or περσικοὶ is described from two Greek MSS. at Paris, 1928, f. 15 (XV cent.), and 2350, last folio (XVI cent.). 2. XIV c. Maximus Planudes. Friedlein, *Gerbert, &c.*, pl. vi. 10, from an excerpt. On the MSS. of the ψηφοφορία see C. I. Gerhardt, *Das Rechenbuch des M. P.* (Halle, 1865); cp. Tannery in *Rev. Arch.* 1886 (i), pp. 357 ff. 3. XIV c. Cod. Marc. 534 (formerly 303). Maximus Planudes, ψηφοφορία. Villosion, *Anecd. Gr.* ii, p. 153 and plate at p. 267. This and the next MS. were kindly examined for me by Mr. W. Miller. They come from Cardinal Bessarion's library. 4. XV c. Cod. Marc. 639 (formerly 323). Maximus Planudes, ψηφοφορία. From Villosion, *Anecd. Gr.* ii, p. 153 and plate at p. 267. Must be earlier than c. 1470, since it was in Cardinal Bessarion's library. 5. Planudes, according to Tannery, *Rev. Arch.* 1886 (i), p. 359. 6. XV c. Cod. Marc., fondo Nani, 255, fol. 182 b. Scholium (in same hand as text) on Tetrabiblos of George Pachymeres. *Rev. Arch.* 1886 (i), p. 357. 7. XV cent. Paris, fonds grec 2428. Tannery, *Rev. Arch.* 1886 (i), p. 359. 8. XV c. Paris, supp. grec 387. Copied from a XIV c. MS.? *Rev. Arch.* 1886 (i), p. 359. The forms are purely Western, but for the inverted 7.

TABLE XIV. BRITISH MONUMENTAL, ETC.

1. Series of numbers from Resurrection images on West front of Wells. *Somersetshire Archaeol. and Nat. Hist. Soc. Proc.* xxxiv (1888), p. 62; *Proc. Soc. Ant.* 1906, xxi, p. 201. Mr. Lethaby has shown that the 2 is of the 7 shape; the numerals cannot therefore be later than the early XIV cent. The only difficulty is caused by the second form of 5. This is hardly possible in the XIII-XIV century. It may be a misread 3 or 6, and should be re-examined. 2. 1445. Tower of Heathfield Church, Sussex. *Journ. Brit. Arch. Assoc.* ix, p. 433; Wright, *Essays*, ii, p. 76. Is this contemporary? The form of 5 seems very modern for the date. 3. 1448. On wooden lych-gate, Bray Church, Berks. *Arch. Journ.* 1850, p. 75. 4. 1470. Elgin Cathedral. Tomb of first Earl of Huntly in St. Mary's aisle. Rubbing in Library of Soc. of Antiquaries. Communicated by Mr. J. Cooper Clark, of Ladyhill. Both 5 and 7 look foreign. 5. 1487. Belfry door of Piddletrenthide, Dorset. Wright, *Essays*, ii, p. 85. 6. 1487. Wooden door at Arminghall. Wright, *Essays*, ii, p. 77. 7. 149? Beverley, on pavement near S. side of Earl of Northumberland's Monument. Gough, *Sep. Mon.* ii, 2, p. 309. The last figure is broken away. 8. 1490. Colchester. The lower part of the 4 being defaced, this has been read as 1090. Wright, *Essays*, ii, p. 78. 9. 1493. Stone in wall of cottage in remains of episcopal manor-house at Bishop's Waltham, Hants. *Arch. Journ.* 1850, p. 76. 10. 1494. Tower of Hadley Church, Middlesex. Wright, *Essays*, ii, p. 79. 11. 1498. On a shield in the hall of Milton Abbey. Wright, *Essays*, ii, p. 86. 12. 1503. St. Cross. On stone. This occurs twice, once in the Porter's Lodge, once in the "Nun's Room". *Arch. Journ.* 1850, p. 76; *Journ. Brit. Arch. Assoc.* ix, pl. xxxiv. 13. 1504. Arms of James IV of Scotland. On a buttress projecting from the W. side of the crowned tower of King's College, Old Aberdeen. *Proc. Soc. Ant. Scot.* xxiii, pl. i (p. 80). Communicated by Mr. W. Kelly. 14. 1509. Stone from London Bridge, found in 1758. Wright, *Essays*, ii, p. 80. 15. 1514. Milton Abbey Church. Wright, *Essays*, ii, p. 86. 16. 1524. On tabernacle at Kinkell Church near Inverurie. AZO. DZI. 1524. NEORARE A. G. The initials are those of Alexander Galloway, "Official" of Aberdeen and Rector of Kinkell. *Trans. Aberdeen Ecclesiol. Society* 1889 (1890). From a photograph communicated by Mr. W. Kelly. There is or was another stone dated 1525 in the same place. 17. 1525. On the screen of Winchester Cathedral. *Journ. Brit. Arch. Assoc.* ix, p. 434. 18. 1527. Stoke Charity, Hants; Waller tomb. *Ib.* p. 435. 19. 1531. Stone from E. battlements of vestry of church at Enfield. Gough, ii (1).

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p. 140, pl. xlix*. 20. 1534. Beam in roof of Eccleston Church, Lancs. Communicated by Mr. C. R. Peers. The assimilation of numerals to letters is very marked. 21. 1537. Wooden seat in Aldham Church, Suffolk. T. Wright, *Essays*, ii, p. 81.

TABLE XV. BRITISH MONUMENTAL, ETC. (*continued*).

1. 1545. Scratched on stone in choir, Winchester. *Journ. Brit. Arch. Assoc.* ix, p. 435. 2. 1552. From the Half-Moon Inn, near Magdalene College, Cambridge. T. Wright, *Essays*, p. 82, after Gough. 3. 1577. Date 1573 on tomb of Robert Blounte, Astley, Wores., made in 1577 by John Gildon of Hereford. 4. 1587. Slab of a member of the Walweyn family, in floor of S. aisle of Colwall Church, Herefordshire. 5. 1592. Ashford Church. T. Wright, *Essays*, ii, p. 82, after Gough.

TABLE XVI. BRITISH BRASSES.

1. 1447. Thomas Fortey, Northleach, Glo'ster. From rubbing in the Soc. Ant. Library. 2. 1454. Eleanor Coke, wife of William Bramble and Richard Warbulton, Ware, Herts. From rubbings in the Soc. Ant. Library and by Mr. C. R. Peers. 3. 1472. Ingylton, Thornton, Bucks. From a rubbing in the Soc. Ant. Library. Cp. T. Wright, *Essays*, ii, p. 77. 4. 1481. Wm. Yelverton, Rougham, Norfolk. From J. S. Cotman. 5. 1487. Sir Wm. Pecche, Lullingstone, Kent. From rubbing in the Soc. Ant. Library. Cp. Belcher, i, pl. lxxv, no. 145. 6. 1489. Thos. Gilbert, Allhallows, Barking. From rubbing in the Soc. Ant. Library. Cp. T. Wright, *Essays*, ii, p. 78. 7. 1493. Houghton Conquest, Beds. From rubbing in the Soc. Ant. Library. 8. 1510. John and Roger Yelverton, Rougham, Norfolk. From Cotman. 9. 1510. Wm. Bysse, Fellow of Merton. Merton College Ante-chapel, Oxford. From a rubbing. 10. 1538. Thomas Bullen, Hever. Rubbing by Mr. C. R. Peers.

TABLE XVII. BRITISH BELLS.

1. 1516. Isleham, Cambs. From a rubbing by Mr. H. B. Walters. 2. 1523. Leaden Roothing, Essex. 3. 1540. Stanstead Mountfitchet, Essex. 6th bell, now recast. From a rubbing belonging to Mr. H. B. Walters. 4. 1546. Felstead, Essex. Clock bell. From a rubbing belonging to Mr. H. B. Walters. 5. 1587. Turton Tower bell. From *Old South-East Lancashire*, vol. i (1880), p. 122.

TABLE XVIII. GERMAN MONUMENTAL, ETC.¹

1. 1388. Ulm. Tombstone of Cunrat Riter. *Verhandl. des Vereins f. Kunst u. Alterthum in Ulm u. Oberschwaben*, vi (1874), pp. xiv f.; *Anzeiger*, 1876, 35; Wattenbach, *Lat. Pal.*, p. 101. The stone was found some feet deep in a cemetery which had not been used since 1530. 2. 1406. Salteins, Vorarlberg. Inscription on tabernacle. *M.C.C., N.F.* xxii, p. 31. The date is written +146+. 3. 1414. Pettau. Inscription on a bracket. *M.C.C., N.F.* vi, pp. cxii, cxiv. 4. 1439. Nürnberg. Lorenzkirche. *Anzeiger*, 1861, 49. 5. 1441. Freising. Choir-stalls from Stiftskirche of St. Veit. *M.C.C.* viii, p. 250. An excellent instance of the sort of date that can be read 1001. 6. 1446. Pettau. Stall. *M.C.C., N.F.* vi, p. cxliv. 7. 1451. Wiener Neustadt. Gravestone of Anna Roll, wife of Johann Roll, who was Bürgermeister of Neustadt 1467-1471. Ströhl, *Herald. Atlas*, text to pl. lxvi, fig. 4. The date of Roll's tenure of office does not of course prove that the date is 1471 rather than 1451. 8. Würzburg. Dom. Coat of arms of Jörg von Bebenburg. Salver, *Proben des hohen Deutschen Reichs-Adels*, Taf. XVII. 65. 9. 1454. Grätz. Tombstone in Franciscan monastery. *M.C.C., N.F.* xvi, p. 75. 10. 1454. Nördlingen. Over porch of tower of Georgenkirche. *Anzei-*

¹ See also Table XLIX.

ger, 1861, 153. The reading 1474 has been suggested; but this form of 7 is not likely at so early a date (see nos. 15–22 in this Table, and 1, 2, 13, 14 in the next). 11. 1458. Ulm. Oak singing-desk by Jörg Sürlin. *Anzeiger*, 1861, p. 49. See *Berichte des Kunst- und Alterthumsvereins von Ulm und Oberschwaben*, 1844, p. 17. 12. 1464. Villach. On choir-stall in church. *M.C.C.* xv, p. 173; cp. iii, p. 127. 13. 1465. Feldkirch. On a house in Marktgasse. *M.C.C.*, *N.F.* viii, p. lxxi. 14. 1466. Friesach. Stone built into a house. *M.C.C.*, *N.F.* xxii, p. 169. 15. 1467. Wiener Neustadt. Gravestone of Empress Eleonora in Cistercian Abbey of Neukloster. By Nicolaus Lerch of Leyden, *M.C.C.* xiv, p. 103. 16. 1470. Garsten. Tomb of Rudolf von Losenstein in the Losenstein Chapel. *M.C.C.*, *N.F.* v, p. xliii. The monument bears the dates 1449 and 1470; the latter is probably the date of its erection or of the death of Rudolf's wife Magdalena. 17. 1470. Ulm. Carved on a roof-beam on N. side of nave of the Minster. *Anzeiger*, 1861, 231. Rather 1470 than 1450, since the short stroke of the doubtful sign turns so definitely downwards. 18. 1470. Hall. Katharinenkirche. *Anzeiger*, 1861, 85, 153. This has also been read 1450, but 1470 is to be preferred for the same reason as in the preceding example. 19. 1473. Ulm. Cut in stone over door of Dürftige-Stube in the hospital. *Anzeiger*, 1861, 84. 20. 1474. Vienna. Gravestone of Margaretha Kelbel. Ströhl, *Heraldischer Atlas*, Text zu Taf. LXVI, fig. 5. 21. 1476. Kralitz. Tomb of Vitus de Kralitz. *M.C.C.*, *N.F.* xxvii (1901), p. 117. 22. 1477. Krems (Lower Austria). Over S. doorway of Church of the Piarists. *M.C.C.* xi, p. 133.

TABLE XIX. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1477. Gravestone of Eustach Frodnacher at Pulgarn. *M.C.C.*, *N.F.* v, p. cxxix. 2. 1479. Marble slab of Sigmund von Eytzing, in parish church of Waidhofen a. d. Ybbs. *M.C.C.*, *N.F.* i, p. xxxiii. 3. 1480. Tabernacle, St. Lorenz, Lorch. *M.C.C.* xiii, p. 179. 4. 1480. Brass of Archbishop Jacobus de Senno. Gnezen. From Creeny, *Monumental Brasses on the Continent*. 5. 1481. On statue of St. Leonhard in church at Kundl (Tirol). *M.C.C.*, *N.F.* xvi, p. 149 (fig. 7). 6. 1481. On tabernacle at Röthis (Vorarlberg). *M.C.C.*, *N.F.* xxii, p. 32. 7. 1482. Brass of Bishop Rudolphus, Breslau. From Creeny, *op. cit.* 8. 1482. On the so-called Fischkasten at Ulm. *Anzeiger*, 1861, 83. 9. 1484. Arms of Kilian von Bibra, in the Dom, Würzburg. From Salver, Tab. VII. 21. 10. 1484. Builder's inscr., chapel of St. Agatha on Christberg (on the pass to Dalaas in the Klosterthal). *M.C.C.*, *N.F.* v, p. 67. 11. 1486. Tombstone of Eitzinger family in parish church, Drosendorf. *M.C.C.* xvii, p. clv. 12. 1486. Brass of Ernst, Duke of Saxony, at Meissen. From Creeny, *op. cit.* 13. 1487. Inscr. on tabernacle at Damtils (Vorarlberg). *M.C.C.*, *N.F.* v, p. 68; xxii, p. 32. 14. 1487. Gravestone in Church of St. Lorenz, Lorch. *M.C.C.*, *N.F.* v, p. cxxix. 15. 1488. Brass of Cardinal Nicolas de Cusa, at Cues on the Mosel. From Creeny, *op. cit.* 16. 1488. Gravestone at Friesach. *M.C.C.*, *N.F.* viii, p. 114. 17. 1490. Choir-stalls, Spitalkirche, Stuttgart. *Anzeiger*, 1861, 231. 18. 1491. On corbel under tabernacle in church of the Benedictines at Ödenburg. *M.C.C.* viii, p. 343. 19. 1491. Builder's mark in church at Hüttenberg (Kärnten). *M.C.C.*, *N.F.* xxiii, p. 110 and plate. 20. 1492. On tomb of King Kazimierz Jagiellończyk at Krakau, by Veit Stosz. *M.C.C.* xiii, p. li. 21. 1493. Gravestone of Anna Hoffer at Schwatz. *M.C.C.*, *N.F.* xxiii, p. 40. 22. 1493. Gravestone of Johann Lenberg in church at Reichersberg in the Innviertel. *M.C.C.*, *N.F.* v, p. xcvi. 23. 1495. On tabernacle at Egg (Vorarlberg). *M.C.C.*, *N.F.* xxii, p. 33. The doubtful figure has been read as 7, but I think there can be no doubt that it is a 5.

TABLE XX. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1495. Marble tombstone of Jeronimus Schrenck, at Loiben. *M.C.C.*, *N.F.* xvii (1891), p. 61, and Beilage v, fig. 2. 2. 1496. On stone panel from the castle at Grätz. *M.C.C.*,

- N.F.* xx, p. 51. 3. 1497. On wooden aumbry niche at Biecz. *M.C.C., N.F.* xix, p. 229.
 4. 1497. Landeck on the Inn: under shield of Oswold von Schrofenstein on S. wall of church. *M.C.C., N.F.* xvi, p. 27. 5. 1497. Landeck. Gravestone. *M.C.C., N.F.* xvi, p. 27.
 6. 1497. Landeck. Under shield of Oswold von Schrofenstein. *M.C.C., N.F.* xvi, p. 28.
 7. 1497. Stone in gable of Church of St. Ruprecht in Bezirk Strassenfuss. *M.C.C.* vii, p. 188.
 8. 1497. At Kuttendorf in Bohemia, in the tower-chamber of the old Münsterberg house. *M.C.C.* vi, 318. The 7 seems to be clear. 9. 1497, written m-cccc-97. Tomb of Wolfgang Hellcampf at Efferding in Hansruckviertel. *M.C.C., N.F.* vi, p. xlv. The doubtful figure might possibly be meant for a 5. 10. 1497. Dates on the tombstone of Jörg von Teuffenbach (died 1497) and his family at Teuffenbach in Steiermark. *M.C.C., N.F.* xvii, p. 226, and Beilage xv, fig. 3. 11. 1498. Brass of Bishop Uriel, Posen. From Creeny, *op. cit.*
 12. 1499. St. Jacob's, Villach. The dates 1487 and 149? occur on the gravestone of Wolfgang and Jeronima Leininger; the former died in 1499, the latter in 1487. *M.C.C.* xix, p. 144.
 13. 1499. Grätz, Hausmark on outside of Dom. *M.C.C.* xix, p. 122. 14. 1499. Grave-stone at Ungarisch-Hradisch. *M.C.C., N.F.* xxiii, p. 102. 15. 1499. Tabernacle in Leech-kirche, Grätz. *M.C.C.* iv, p. 219. 16. 1499. Tombstone of Eitzinger family at Drosendorf (not earlier than 1501). *M.C.C.* xvii, p. clvi. 17. 1499, written M499. Signature of Veit Stosz on relief of Kiss of Judas in Church of St. Sebaldus, Nürnberg (on the scabbard of one of the Orientals). *Anzeiger*, 1862, 403. This is rightly explained as a date by Lepkowski, *M.C.C.* xii, p. lxxxv. 18. 1500. Arms of Georg Fuchs von Wunfurt. Dom, Würzburg. Salver, Tab. III, 8. 19. 1500. Arms of Barth. von Reie. Dom, Würzburg. Salver, Tab. V. 14. 20. 1501. Arms of Georg von Giech. Dom, Würzburg. Salver, p. 146, 2. 21. 1502. Gmünd, Spitalkirche. *Anzeiger*, 1861, 231. 22. 1502. Arms of Albrecht von Bibra. Dom, Würzburg. Salver, Tab. V. 15. 23. 1503. Cilli (Styria). Gravestone of a Hohenwarter. *M.C.C., N.F.* vii, p. lxxv.

TABLE XXI. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1504. Partschendorf. Tombstone on outer wall of church. *M.C.C., N.F.* xxv, p. 43.
 2. 1505. Taufers. Tombstone of Anna Wiltpolt. *M.C.C., N.F.* xxi, 256. 3. 1505. Seben-stein. Gravestone. *M.C.C., N.F.* xi, p. xlii. 4. 1505. Brass of Eberard von Rabenstein, Bamberg. From Creeny, *op. cit.* 5. 1506. Font in church on the Heerberg. *Anzeiger*, 1861, 232. 6. 1506. Rankweil, on crossbeam of bell-frame in the "Dicker Thurm". *M.C.C., N.F.* xxi, p. 241. 7. 1506. Landeck. Porch of church. *M.C.C., N.F.* xvi, p. 24. 8. 1506. Landeck. Stone font. *M.C.C., N.F.* xvi, p. 25. 9. 1506. Gmünd. In side chapel of parish church. *Anzeiger*, 1861, p. 232. 10. 1506. Tombstone of Heinrich and Anna von Guttenberg at Wolfsberg (Kärnten). *M.C.C., N.F.* xviii, p. 111. 11. 1507. Salzburg. Gravestone. *M.C.C., N.F.* xi, p. lxviii. 12. 1507. Nassenreith, near Imst, Tirol. Stone font. *M.C.C., N.F.* xviii, p. 65. 13. 1508. Klosterneuburg. Gravestone. *M.C.C., N.F.* xiv, p. 51. 14. 1509. Laterns, Vorarlberg. Inscription on tabernacle. *M.C.C., N.F.* xxii, p. 32. 15. 1510. Wooden Todtenschild, from Salzburg, of "Georg Stöckl von Schwarzcek". *M.C.C., N.F.* xxv, p. 107. 16. 1510. Kufstein, Tirol. Tombstone of Kaspar v. Thurn. Ströhl, *Herald. Atlas*, Text zu Taf. LXVII, fig. 5. 17. 1511. Sebenstein. Gravestone. *M.C.C., N.F.* xiii, p. xlvii. 18. 1513. Gurksfeld. Tablet in Church of St. John. *M.C.C., N.F.* xviii, p. 124. 19. 1513. Langenzenn. Relief of Annunciation by Veit Stosz. *Mitt. Germ. Nationalmus.* 1908, Taf. IX. 20. 1513. Steier (Upper Austria). Tombstone of Meister Wolfgang Tenk. *M.C.C.* xvii, p. li; *N.F.* xvi, p. 153. 21. 1516. Cilli, parish church. Tomb of Jakob Neuburger's two wives. *M.C.C., N.F.* xvi, p. 254, and Beilage xx, fig. 3. 22. 1520. Schönberg near Vöklabruck. Monument of Caspar von Perkheim in the Marienkirche. *M.C.C.* xv, p. cxvii. 23 (and XXII. 18, 23, 24). 1520, 1536, 1543, 1544. Luggau (Kärnten). Hauszeichen-dates on church. *M.C.C., N.F.* xxvi (1900), p. 19 and plate.

TABLE XXII. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1521. Maria Feicht (Kärnten). Shield on vaulting of organ-gallery. *M.C.C.*, xiii, p. 77.
2. 1521. Tarnów. Marble inscription on monument (in Italian style) of Barbara Tarnowska. *M.C.C., N.F.*, xix, p. 73.
3. 1522(?). Ringenhain (Friedland). Builder's inscription in St. Magdalen's. *M.C.C., N.F.* xxii, p. 154.
4. 1523. Nürnberg. Germ. Nationalmus. Bronze epitaph of Mertin Stengel. *Mill. Germ. Nationalmus.* i, p. 185. Cp. the forms on the "1320" seal of Trostberg (above, p. 144).
5. 1524. Römhild, Old Henneberg Schloss. Keystone of a small pointed-arched door. *Anzeiger*, 1863, 324.
6. 1524. Friesach. Tombstone of Coloman Brunmeister. "M.D.24. die 21", &c. *M.C.C., N.F.* vi, p. cx.
7. 1524. Feldkirchen. On a house. (Painted or carved?) *M.C.C., N.F.* xxii, p. 170.
8. 1524. Olmütz. Builder's inscription in St. Michael's. *M.C.C., N.F.* xix, p. 131.
9. 1524. Latsch (Vintschgau). Builder's date in church. *M.C.C., N.F.* xxiii, p. 213.
10. 1524. Maria Feicht (Kärnten). Stone music-gallery in church. *M.C.C., N.F.* xxiv, p. 107.
11. 1524. Prusinovic (Mähren). Grave-stone. *M.C.C., N.F.* xix, p. 34.
12. 1526. Brensbach Evangel. Church. Date under the arms of Philip the Magnanimous on the pulpit. *Archiv f. hess. Gesch.* v, pt. 2, art. xii. Important in its bearing on the forms seen on the seal of Gottfried von Hohenlohe (p. 144).
13. 1528. Salzburg. Tombstone of Hans Reuter von Klebing. [Reference mislaid.]
14. 1529. Enns im Traunviertel, Austria. Gravestone of Erasmus Paumkirchner. *M.C.C., N.F.* vii, p. cviii.
15. 1533. Wolfsberg. Tombstone of G. von Streitberg. *M.C.C., N.F.* xviii, p. 150. Note the two forms of 3, one of which might almost be taken for a 2. The 1 is somewhat confused with the preceding ornamental stop.
16. 1534. Clay water-pipe from Bochtitz. *M.C.C., N.F.* xxi, p. 50.
17. 1534. Weikelsdorf near Zeitz. On a pillar of the church (beginning of XVI cent.). *Anzeiger*, 1863, 322. The interpretation is not quite sure, the inscription being a freak. There is a still worse instance in the church at Langendorf, near Zeitz (*ib.* p. 323), which has been read 1531 or 1571, although it is difficult to make anything at all out of it.
18. See XXI. 23.
19. 1537. Regensburg. Sandstone slab outside Church of St. Emmeran. L. Day, *Lettering in Ornament*, after Gerlach u. Schenk, *Monum. Schriften*.
20. 1541. Nürnberg. Bronze epitaph. L. Day, *Lettering in Ornament*, p. 54, after Gerlach u. Schenk, *Bronce-epitaphien der Friedhöfe zu Nürnberg*.
21. 1542. Brunn. Tombstone (in Dom) of Michael of Regensburg and his wife, bearing dates 1519 and 1542, all probably of the latter date. *M.C.C., N.F.* xix, p. 133.
22. 1542. Raigern. Gravestone of Abbot Ambrosius. *M.C.C., N.F.* xxi, p. 123, where the date is described as 1542 corrected to 1540; from the illustration it would appear that the last sign is merely a 2 with ornamental serifs.
- 23, 24. See XXI. 23.

TABLE XXIII. GERMAN SEALS.

1. 1331. City of Heidingsfeld am Main. *Anzeiger*, 1859, 249. In the illustration there given it may be noted that the numerals are somewhat weak in appearance, and not symmetrically placed with regard to the design; are they a subsequent addition?
2. 1351 (pl. XIX, no. 5). City of Ulm. Germ. Mus., Nürnberg. "Sigillum secretum civium in ulma 1351." *Anzeiger*, 1859, p. 250; *Verhandl. des Vereins für Kunst u. Alterthum in Ulm u. Oberschwaben*, vi (1874), pp. xiv f.
3. 1368. Johann I, Landgraf zu Leuchtenberg. *Anzeiger*, 1859, 373. Impressions in the K. bayer. Reichsarchiv.
4. 1369. Hermann der Rot von Ulm. *Anzeiger*, 1861, 153; 1869, 326 (illustrated). It is noted that the form of the shield is unusual at this time.
5. 1405 (pl. XIX, no. 4). This is apparently the date on an obscure seal of the city of Wimpfen in the Germ. Mus., Nürnberg. The legend appears to be "S. Secreti (*sic*) Oppidi Wimpfensis 1405". The 5 is like a modern 2 set on its side. This may be the seal which is described in *Anzeiger*, 1859, p. 250, as reading 1426.
6. 1412 (pl. XIX, no. 6). Johann, Abbot of Kaisersheim. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. "Sigillum iohannis

abbatis in cesarea h(?)". The date 1412 is in the field. This is Johann Scherb, eighteenth abbot, 1405-1423. 7. 1425. Propst Ulrich in den Wengen. *Anzeiger*, 1861, p. 82. 8. 1429 (pl. XIX, no. 3). Bishop Albrecht II of Eichstädt. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. 9. 1433 (pl. XIX, no. 7.) Monastery of St. Oswald. Germ. Mus., Nürnberg. "1433. s. conventus monasterij s. oswaldi canonicorum regular." In *Anzeiger*, 1859, p. 251, this is described as a seal of the Monastery of Niederaltaich. St. Oswald's, however, was an Augustinian house, near Gravenau in the diocese of Passau, though it seems to have been in some way dependent on the Benedictine house at Niederaltaich. On this seal the arms of the house are simply [az.] a fess [arg.] ; above the shield is a raven holding a ring in its beak. Sibmacher, *Klöster*, p. 67, Taf. 83, gives a later version of the arms showing two shields accolés, viz. az. a fess arg., and arg. on a mount a raven holding a ring in its beak (tincture not stated). 10. 1433. City of Stuttgart. "S. civium in Stuoitgarten." *Anzeiger*, 1861, p. 84. See Pfaff in *Württemb. Jahrbücher*, 1854, 2, p. 178. 11. 1436. City of Heidelberg. In use on documents from 1436 to 1501. See A. von Weech, *Siegel der badischen Städte*, pl. xviii. 12. 1440. City of Grätz. *M.C.C.* xvi, p. cxi. Cp. J. Wartinger, *Privilegien der Hauptstadt Graz* (1836), p. ii. 13. 1444. Seal of a member of the family of Riedtheim. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 250. The name is there given as Ludwig von Rietheim, which I cannot decipher on the impression before me. Possibly the name is Ulric (Udalric), since an Udalric of Riedtheim was in existence at this time (Bucelinus, *Germania Stemm.* vol. i, under Riedtheim). 14. 1444. Seal of Monastery of Holy Trinity, Wiener Neustadt. *Jahrb. k. k. Centr.-Comm. für Erforsch. u. Erhalt. der Baudenkmale*, iii (1859), p. 238. 15. 1444. Seal of city of Wetzlar, Germ. Mus., Nürnberg. "Secretū civitatis wetzlariēsis ad causas 1[44]4." *Anzeiger*, 1859, p. 250. 16. 1446. Seal reading "Nicolaus Grünwalt pp. ad(?) Sot(?)". Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251 ("Kloster Grünwald"). 17. 1446. Albert VI of Austria. *M.C.C.* xv, p. 37. 18. 1450. Seal of Imperial Landgericht (provincialis burggraviatus) in Nürnberg. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. This is given (wrongly) as 1420 in *Anzeiger*, 1861, p. 230. 19. 1450+. Friedrich III. No space allowed for the fourth numeral. Cp. the book-plate of 1470 of Johannes, priest of St. Moritz in Augsburg (above, p. 150). 20. 1452. Seal of the Provincial of the Franciscan Order for Austria and Styria. *M.C.C.* xix, p. 260. 21. 1453. City of Krems. Melly, no. 46, pl. viii; *M.C.C.* xvii, p. xxiii.

TABLE XXIV. GERMAN SEALS (*continued*).

1. 1453. Dominican Convent of St. Peter in Wiener Neustadt. *M.C.C.* xv, p. cxxviii. 2. 1454. City of Ulm. B.M., Birch, *Catal. of Seals*, no. 21,521 (misread 1457); on a document of 1520 (B.M., Add. Ch. 26725). 3. 1454. Seal of Heinrich Mühlbach of Judenburg. *M.C.C.*, *N.F.* xxii, p. 26, fig. 18. 4. 1454. Kurfürst Friedrich I von der Pfalz. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 250. 5. 1458. Friedrich III. *M.C.C.* xvi, p. 31. 6. 1458. Wiener Neustadt. *M.C.C.* xvi, p. cxcv. 7. 1459. Friedrich III as Archduke of Austria. From a wax cast of an impression in the Germ. Mus., Nürnberg. Cp. the illustration in *M.C.C.* xvi, p. 23, where the 5 is drawn somewhat differently. 8. 1464. Friedrich III. *M.C.C.* xvi, p. 31. 9. 1464. City of Vienna. *M.C.C.* xi, p. xi (Beibl. no. 16). 10. 1464. City of Oppenau, in use 1474-1609. A. von Weech, *Siegel der badischen Städte*, pl. lxxxv. A later version of this seal was evidently made towards the end of the century; it bears the same date (but with the upright 4), and occurs on documents from 1499 to 1622. 11. 1465. City of Cilli. *M.C.C.* xvi, p. cii. 12. 1467. Knittelfeld. *M.C.C.*, *N.F.* iv, p. lxx. 13. 1468. Markt Aspang. *M.C.C.* xvi, p. lxii. 14. 1469. Grein. *M.C.C.* xix, p. 89. On a document of 1473. Cp. Melly, p. 71, no. 149, pl. iv. 15. 1471. Gottschee. *M.C.C.*, *N.F.* xii, p. clix. 16. 1472. Landgericht of the Grafschaft Rotenfels. *Anzeiger*, 1861, p. 83.

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The original matrix is in the Maximiliansmuseum at Augsburg. 17. 1473. Krautheim. In use 1503-1521. A. von Weech, *Siegel der badischen Städte*, pl. vi. 18. 1476. Gmündten. *M.C.C., N.F.* iv, p. lxix. 19. 1477. Gurkfeld (Krain). *M.C.C.* v. 328. Cp. *M.C.C.* xix. 89, which is a XVI cent. reproduction.

TABLE XXV. GERMAN SEALS (continued).

1. 1479. Augustin Adlof of Judenburg. *M.C.C., N.F.* xxii, p. 26. On a document of 1480.
2. 1480. Amalie, Duchess of Bavaria, daughter of Friedrich the Mild. O. Posse, *Die Siegel der Wettiner*, pl. xxiii. 4.
3. 1481. Provost of Monastery of St. Nicolas in Rotenmann. *M.C.C.* xix, p. 252.
4. 1483. City of Freiburg i. Ü. *Anzeiger*, 1873, 94.
5. 1485. Rector of University of Cologne. Silver matrix in the Victoria and Albert Museum. Cp. Sibmacher, *Wappenbuch*, i. 8, Taf. XVIII, 3 (illustration inexact). The bottom stroke of the 5 is shortened by part of the design.
6. 1487. Krems. Melly, *Beiträge*, no. 48, pl. ix. Cp. *M.C.C.* xvii, p. xxiv.
7. 1487. Dominican Convent of St. Mary, Neukloster. *M.C.C.* xix, p. 246.
8. 1487. Monastery of St. Nicolas in Rotenmann. *M.C.C.* xix, p. 253.
9. 1488. City of Judenburg. *M.C.C.* xvii, p. clix. On a document of 1603, but may be contemporary with the date it bears.
10. 1488. Monastery of St. Paul in the Lavantthal. *M.C.C.* xix, p. 261.
11. 1489. Benedictine Monastery of St. Lambrecht. *M.C.C.* xix, p. 242.
12. 1489. Benedictine nunnery at Göss (Styria). *M.C.C.* xviii, p. 318.
13. 1489. City of Bautzen. Germ. Mus., Nürnberg. Misread 1444 in *Anzeiger*, 1859, p. 250. It may possibly be 1484.
14. 1492. Hans Hohewarter of Judenburg. *M.C.C., N.F.* xxii, p. 26.
15. 1493. Seal of Hans Stahl of Judenburg. *M.C.C., N.F.* xxii, p. 26.
16. 1493. Drosendorf. *M.C.C., N.F.* iii, p. cxxiii.
17. 1502. Brilon (Westphalia). Philippi, *Westphal. Siegel*, pl. 97, 10.
18. 1503. Frauenbruderschaft im Spitale zu Wien. *M.C.C.* xvi, p. lxii.
19. 1503. Vienna. *M.C.C.* xviii, p. 219.
20. 1503. Heidelberg. On documents from 1502 (!) to 1601. A. von Weech, *Siegel der badischen Städte*, pl. xviii.
21. 1504. Regular Canons, S. Veit, Pöllau. *M.C.C.* xix, p. 250.

TABLE XXVI. GERMAN SEALS (continued).

1. 1507. Stephan Bär of Judenburg. *M.C.C., N.F.* xxii, p. 26.
2. 1514. Tübingen. Pfaff, *Württemberg. Jahrbücher*, 1854, 2, p. 147.
3. 1517. Reuchen. In use 1517-1522. A. von Weech, *Siegel der badischen Städte*, pl. lx.
4. [15]19. Two seals of Hermann V, Abp. of Cologne. Ewald, *Rheinische Siegel*, i, pl. xxvi. 7; xxvii. 1.
5. 1521 (or 1527). Heidelberg. In use 1570-1579. A. von Weech, *Siegel der badischen Städte*, pl. xlv.

TABLE XXVII. GERMAN: VARIOUS.

1. 1434. "Anno doi milesimo cccc 34". Window in St. Leonhard's, Tamsweg. *M.C.C.* xix, pp. 77, 80.
- 2, 4. 1444, 1448. On a stole and pallium, with the motto of Friedrich III, at Tököle. *M.C.C., N.F.* vii, pp. 72, 73.
3. 1446. Bell at Nenberg. *M.C.C., N.F.* xxiii, p. 122. The date 1442 occurs on a bell in the church ad S. Ioannem decoll. in Zeben (*M.C.C.* xvii, p. iii).
5. 1463. Figures and date on a portable sundial found at Hörnstein, Lower Austria. *M.C.C.* xvi, p. clxxx.
6. 1466 (M466). On the bottom of a paten. *Anzeiger*, 1861, p. 190.
7. 1491. Mark on the eagle of the Merchants' Schützengild of Breslau. *M.C.C.* vii, p. 52.
8. 1495. Pall of the Holzschuhers, in the Germanisches Nationalmuseum, Nürnberg. *Mitt. Germ. Mus.* 1895, p. 99.
9. 1499. On sword of the Hochmeister Siebenhirter of the Order of St. George. *M.C.C.* xviii, pp. 310 (fig. 11), 315.
10. 1508. Bell in St. Michael's Chapel, Rankweil. *M.C.C., N.F.* xxi, p. 241.
11. 1517. Glass-painting in the Germanisches Nationalmuseum, Nürnberg. *Katalog* (1898), no. 260, p. 33 and pl. xi.
- 12-14. 1526, 1530, 1531. German pottery (plates in the Germanisches Nationalmuseum). *Anzeiger*, 1875, p. 238.
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1573. Date and figures on a metal gauge (German) in the British Museum. A late survival of the old 4. 16. 1596. German pottery. *Anzeiger*, 1875, p. 268. Very similar forms occur on a plate dated 1593, *ibid*.

TABLE XXVIII. GERMAN PAINTINGS.¹

1. 1435. Altar-piece by Lukas Moser at Tiefenbronn. *Anzeiger*, 1861, pp. 49 and 83; *Jahrb. der kunstgesch. Gesellsch. f. fotogr. Publikationen*, v (1899). It has been read 1431 and even 1451; the latter is highly improbable. If the artist wished to vary the form of his 1, he would be more likely to ornament the numeral on its first than on its second occurrence; the first numeral is often decorated, like an initial letter. The fourth numeral here is thus probably not 1, and it can hardly be anything but 5. 2. 1446. Heraldic painting ("Hand-registratur" of King Friedrich IV), Vienna. Ströhl, *Herald. Atlas*, pl. xxviii. 3, 4. 1449. D. Pfenning. Vienna, 1396. 5. 1483. Hungarian School. Budapest, 9. 6, 7. 1487, 1488. Paintings on side-altars in St. Martin's Chapel near Ludesch. *M.C.C., N.F.* xviii, p. 236. 8. 1491. Monogrammist R. F. Vienna, 1398. 9. 1493. Dürer. Portrait of himself, formerly in the Felix Collection. Cust, *Dürer Engravings*, p. 21. 10. 1498. Dürer. Portrait. Prado. 11. 1499. Dürer. Portrait of Hans Tucher. Grand-Ducal Museum, Weimar. From Dürer Society's Reproduction. 12. 1503. Dürer. Vienna, 1442. 13. 1504. Lucas Cranach the Elder. Berlin, 564 A. 14. 1506. Dürer. Berlin, 557 F. 15. 1506. Dürer. Dresden, 1870. 16. 1507. Dürer. Vienna, 1444. 17. 1507. Dürer. Berlin, 557 I. 18. 1507. Albrecht Altdorfer. Berlin, 638. The date occurs twice on the picture. 19. 1507. Albrecht Altdorfer. Berlin, 638 A. Note the 3-like form of 5. 20. 1508. Meister des Marienlebens. Cologne, 141. 21. 1508. Dürer. Vienna, 1446.

TABLE XXIX. GERMAN PAINTINGS (*continued*).

1. 1509. Hans Schäuufflein. Portrait. German. Mus., Nürnberg. *Mitt. Germ. Mus.*, 1895, p. 65. 2. 1510. H. Schäuufflein. Prag, 609. 3. 1511. Hans Burgkmair. Berlin, 584. 4. 1511. Hans von Kulmbach. Berlin, 596 A. 5. 1511. H. Schäuufflein. Berlin, 560. 6. 1511. Dürer. Vienna, 1445. 7. 1512. Dürer. Vienna, 1447. 8. 1512. Baldung. Berlin, 603. 9. 1512. Jörg Breu. Berlin, 597 A. 10. 1514. Monogrammist I. M. Prag, 177. 11. 1514. Hungarian School. Budapest, 5. 12. 1515. Altdorfer. Vienna, 1422. 13. 1515. Baldung. Vienna, 1424. 14. 1515. L. Cranach the Elder. Vienna, 1453. In spite of the difference between the second and fourth numeral, both probably represent 5. 15. 1516. Baldung. Prag, 27. 16. 1519. Dürer. Vienna, 1443. 17. 1520. Hans Brosamer. Vienna, 1477. 18. 1526. Dürer. Vienna, 1448. 19. 1528. L. Cranach the Elder. Stockholm, 1080. 20. 1528. Wolf Krodel. Vienna, 1472. 21. 1529. Ruprecht Heller. Stockholm, 272.

TABLE XXX. GERMAN PRINTED BOOKS, WOODCUTS, ETC.

1. 1464. Woodcut. Dodgson, *Catalogue of Early German and Flemish Woodcuts in the British Museum*, i (1903), A. 25. 2. 1470. Block-book, *Biblia Pauperum*. (B.M., I B. 3.) 3. 1470. Rolewinck, *Sermo in festo praesentationis beate Marie Virginis*. Cologne. (B.M., I A. 3102.) The first figure 1 is of course merely a capital letter I. 4. 1471. Block-book, *Biblia Pauperum*. (B.M., I C. 5.) 5. 1473 (after October). *Fasciculus Temporum*. Cologne. (B.M., I B. 3805.) 6. 1474. Regiomontanus. Nürnberg. (B.M., I A. 7888.) 7. 1477. *Fasciculus Temporum*. Cologne. (B.M., I B. 3128.) 8. 1479. *Fasciculus Temporum*. Cologne. (B.M., I C. 4371.) 9. 1481. Woodcut by Hans Schauer. Dodgson, *Catalogue*, i, A. 120. 10. 1482. Woodcut. Dodgson, *Catalogue*, i, A. 123; Schreiber, *Manuel*, 1881.

¹ See also Supplementary Table L. 11.

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11. 1488. Woodcut in Augsburg Boethius. D. E. Smith, *Rara Arithmetica*, p. 26. 12. 1496. Woodcut: Andechs or Munich. Dodgson, *Catalogue*, i, p. 120. 128. 13. 1499. Woodcut by Mair of Landshut. Dodgson, *Catalogue*, i, p. 149. 145. 14. 1499. Woodcut by Mair of Landshut. Dodgson, *Catalogue*, i, p. 149. 143. 15. 1499. Woodcut by Burgkmair. Schreiber, *Mannel*, 2022; *Catal.* 40, pl. xv. 16. 1500. Johann Widman, *Behennd vnd hüpsch Rechnung* (Commercial Arithmetic). Pforzheim. D. E. Smith, *Rara Arithm.*, p. 37. 17. 1503. From Reisch, *Margarita Philosophica*. Freiburg, 1503. Woodcut title-page. 18. 1504. Dürer. Nativity (B. 2). 19. 1507. Woodcut in the 1507 Algorithmus (Leipzig). D. E. Smith, p. 88. 20. 1508. Dürer. Copper engraving. St. George on Horseback.

TABLE XXXI. GERMAN COINS.

All from specimens in the British Museum, except no. 15, which is : 1504. Salzburg, Archbishop Leonhard. *Blätter f. Münzfreunde*, 1909, pl. clxxxiv. 5.

TABLE XXXII. GERMAN COINS.

All from specimens in the British Museum, except nos. 2 (from a photograph), 8 (from *Anzeiger*, 1861, 232), and 11 (from a specimen in Mr. Rosenheim's collection).

TABLE XXXIII. GERMAN MEDALS.

1. 1499. Ladislaus II of Hungary. Domanig, *Die deutsche Medaille*, No. 6. 2. 1507. Albert IV of Bavaria. Domanig, no. 32, pl. iv. 3. 1508. Michael Wolgemut, attributed to Dürer. The date was incised in the model. Rosenheim Collection. 4. 1512. Friedrich, Duke of Saxony. The date has the appearance of being punched in. Rosenheim Collection. 5. 1514. "Dürer's Father," attributed to Dürer. Rosenheim Collection. 6. 1524. Magdeburg, Cardinal Albert of Brandenburg.

TABLE XXXIV. SWISS COINS.

All from specimens in the British Museum.

TABLES XXXV-XXXVIII. LOW COUNTRIES. COINS, ETC.

The numerals in Tables XXXV-XXXVIII are taken chiefly from specimens in the British Museum, supplemented by the illustrations in the various volumes by Van der Chiis on Netherlandish coins.

TABLE XXXV.

- 1, 4, 8, 10 are from coins of Flanders. 2, 5, 7, 9, 11, 16 are from coins of Brabant. 3, 6, 13 are from coins of Gelderland. 12, 14, 15 are from coins of Holland.

TABLE XXXVI.

1, 4, 6 are from coins of Utrecht. The last might possibly be read 1487, but the distinct curve in the tail of the doubtful figure suggests that we have an analogy to the German 5; in other cases (as Table XXXVIII. 2 and 6) the form of 5 is still nearer to the modern 7. Compare also the Gelderland forms, Tables XXXVII. 15 and XXXVIII. 16. 2, 7, 14 are from coins of Brabant. 3, 5, 9, 11, 13 are from coins of Holland. 8, 15 are from coins of Friesland. 10 is from a coin of Gelderland. 12, 16 are from Flemish jetons.

TABLE XXXVII

1. Medal of Archbishop Schevez of St. Andrews. The belief that this medal is of Flemish origin is confirmed by evidence which will be published by Dr. R. F. Burckhardt of Basel.

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Schevez was out of Scotland, on a journey to Rome, at the time the medal was made. 2, 15 are from coins of Gelderland. For the "German" 5 in the latter compare Table XXXVI. 6, 3, 5, 9 are from coins of Utrecht. 4, 8, 10, 20, 21 are from jetons. In No. 10 the two forms of 4 are not on the same piece, but on two different jetons of the same year. 6 is from the Montagu specimen of the so-called "Perkin Warbeck groat", which, there can be little doubt, was struck in Flanders, and is not a coin but some sort of counter. Franks and Grueber, *Medallie Illustrations*, i, p. 21, no. 3. 7, 12 are from coins of Holland. 11, 19 are from coins of Friesland. 13, 14, 17, 18 are from coins of Brabant. 16 is from a coin of Luxemburg.

TABLE XXXVIII.

1, 4, 7, 12, 14 are from coins of Brabant. 2, 6, 8 are from coins of Utrecht. The form of 5 on nos. 2 and 6 has already been noticed. 3, 5, 9, 11, 13, 15, 17-22 are from jetons. The last is given as an instance of a form of 5 which might easily be mistaken for 3. 10, 16 are from coins of Gelderland, the latter showing the "German" 5.

TABLE XXXIX. LOW COUNTRIES: PAINTINGS.

1. 1432. 10 Oct. Jan van Eyck. National Gallery, 290. 2. 1433. Jan van Eyck. National Gallery, 222. The date is written M^oCCCC^o.33^o.21 Oct. 3. 1434. Jan van Eyck. National Gallery, 186. 4. 1438. 31 Januarii. Jan van Eyck. Berlin, 528. 5. 1446. Petrus Cristus. Portrait of Edward Grimston, at Gorhambury. *Archaeologia*, xl, p. 459. 6. 1462. Flemish School. Portrait of a man. National Gallery, 943. 7. 1474. Flemish School. Martyrdom of St. Erasmus. Library of Soc. of Antiquaries. Scharf's *Catal.*, p. 13 f. 8. 1514. Atelier of Quentin Matsys. Stockholm, 505. 9. 1516. Gossart. Berlin, 648. 10. 1523. Jacob van Utrecht. Berlin, 623 A. 11. 1528. Jan van Rillaer. Berlin, 1630.

TABLE XL. FRENCH MEDALS.

1. 1485. Aimar de Prie. From the Paris specimen. I have placed this among the French medals, although it has some affinities with N. Italian work. But I can find no evidence of Aimar de Prie's having visited Italy so early as 1485. The medal has been attributed to a later date, but I am by no means sure that Friedländer (*Die geprägten Medaillen*, p. 15) is not right in insisting that it was struck in 1485. 2. 1486. Charles de Bourbon. British Museum. Cast. 3. 1493. Charles VIII and Anne de Bretagne. British Museum. Struck at Lyons; the work of Louis Lepère, Nicolas de Florence, and Jean Lepère. 4. 1494. Medal issued at Vienne on the birth of the Dauphin, Charles-Orland. See Heiss, *Niccolò Spinelli*, etc., p. 53; Mazet-rolle, *Les Médailleurs français*, pl. ii. I note, as a matter of interest to numismatists, that there is in the British Museum (Dept. of British and Mediaeval Antiquities) a seal-like reproduction of this medal in cast bronze, the representation being sunk, instead of in relief. To make it, a specimen of the medal must have been taken, two wax impressions made from it, these two impressions placed back to back, the whole covered with moulding material, and the present piece cast by the *cire perdue* process. 5. 1499. Lyons medal of Louis XII and Anne de Bretagne. Cast. 6. 1512. François I. *Trésor de Numismatique, Méd. fr.* i, pl. x. 1. Possibly not French. 7. 1512. Florimond Robertet. *Op. cit.* i, pl. xliii. 3. Possibly not French. 8. 1518. Medals of Jacques de Vitry, Pierre Girard de Rhodéz, Jean de Talaru, Antoine de Toledo. British Museum, etc. All misread 1515 by some old writers, owing to the peculiar shape of the 8.

TABLE XLI. ITALIAN PAINTINGS.¹

1. 1472. Carlo Crivelli. Virgin and Child. R. H. Benson Collection. *Catal. of the National Loan Exhibition*, 1909-10, no. 71. 2. 1473. Giov. Boccato (Umbrian School).

¹ For a painting dated 1391, see Supplementary Table L. 5; for others of 1464, above, p. 147, note 1.

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Budapest, 74. 3. 1474. Antonello da Messina. Berlin, 18 A. 4. 1475. Antonello da Messina. Louvre, 37. 5. 1477. Antonello da Messina. National Gallery, 1166. 6. 1477. Bartolommeo Vivarini. Vienna, 10. 7. 1485. Bartolommeo Vivarini. Berlin, 1160. 8. 1487. Bonsignori. National Gallery, 736. 9. 1489. Francesco Tacconi. National Gallery, 286. 10. 1496. Carpaccio. Vienna, 7. 11. 1497. Niccolò da Foligno. Budapest, 82. 12. 1497. Ant. da Carpi. Budapest, 123. 13. 1499. Macrino d'Alba. Imbert Collection, *Burlington Magazine*, May, 1909, p. 115. This is not, as there stated, a portrait of the painter, the inscription implying the very contrary. 14. 1502. Lorenzo Costa. Berlin, 112. 15. 1502. Francesco Francia. Berlin, 122. 16. 1510. Florentine: atelier of San Marco. Vienna, 38. 17. 1511. Fra Bartolommeo. Borghese Gallery, 310. From Lafenestre. 18. 1511. Andrea Solario. Borghese Gallery, 461. From Lafenestre. 19. 1515. Basaiti. Vienna, 1. 20. 1515. Panel (marriage tray) in Victoria and Albert Museum. Madonna and Child and two angels. 21. 1516. Fra Bartolommeo. Vienna, 41.

TABLE XLII. ITALIAN PAINTINGS (*continued*).

1. 1521. Lorenzo Lotto. Berlin, 325. A similar form of 5 occurs on Venetian medals (Table XLV. 11-14). Its origin is seen in forms like those on no. 20 of preceding Table. 2. 1522. Franciabigio. Berlin, 245. 3. 1523. Andrea del Sarto. Portrait of himself. Panshanger. [National Loan Exhibition, 1909-10, no. 45.] 4. 1526. Mazzolino. Vienna, 88. 5. 1531. Lorenzo Lotto. Berlin, 323.

TABLE XLIII. ITALIAN MAJOLICA.

1. Mid. XV. cent. Majolica roundels of the Months, by Luca della Robbia, in the Victoria and Albert Museum. These show the characteristic Italian forms of the time. The figures in the July are restored, and the fraction may possibly have once been $\frac{2}{3}$. My attention was called to these by Mr. E. D. MacLagan, who informs me that the roundels must date before about 1460, or 1464 at the latest. 2. 1487. Faenza. Fortnum, *Majolica*, p. 88. 3. 1489. Forlì. Plaque in Victoria and Albert Museum (490. '64). 4. 1491. Faenza. Fortnum, p. 92. 5. Gubbio plaque by Giorgio Lombardo in the British Museum. 6. 1503. Faenza. Fortnum, p. 109. 7. 1508. Castel Durante. Fortnum, p. 49. 8. 1509. Caffaggiolo. Fortnum, p. 3. 9. 1513. Faenza. Fortnum, p. 117. 10. 1513. Tile in British Museum. Wallis, *Italian Ceramic Art: the majol. pavement tiles of the fifteenth century*, fig. 91. 11. 1518. Gubbio. Fortnum, p. 28. 12. 1524. Gubbio. Fortnum, p. 30. 13. 1526. Gubbio. Fortnum, p. 34. 14. 1528. Gubbio. Fortnum, p. 36. Anywhere but in Italy, this might possibly be 1524, the 4 being inverted. But a badly made o is not out of the question. 15. 1528. Gubbio. Fortnum, p. 33. 16. 1530. Gubbio. Fortnum, p. 36.

TABLE XLIV. ITALIAN MEDALS, ETC.

1. 1390. Medal of Francesco Carrara. *Periodico di Numismatica*, i, pl. vii. 5. Struck. 2. 1393. Venetian medal, by Marco Sesto. *Op. cit.* i, pl. vii. 1. Struck. 3. 1417. Venetian tessera, by Alessandro Sesto. *Op. cit.* i, pl. vii. 3. Struck. 4. 1446. Sigismondo Malatesta, by Matteo de' Pasti. British Museum. 5. 1447. Isotta Atti, by Matteo de' Pasti. Incised on the model; the 1 is obscure. Heiss, *Les Médailleurs de la Renaissance*, *Alberti*, pl. viii. 4. 6. 1448. Antonio Marescotti, by Marescotti. Heiss, *Marescotti*, etc., pl. ii. 2. Incised on the model. There is no reason to doubt its contemporaneity. 7. c. 1460. Antonio Roselli, by Bartolommeo Bellano. From the British Museum specimen. The figures 91 cannot indicate Roselli's age if, as seems to be the fact, he died, aged 85, on Dec. 10, 1466. See Semrau, *Donatello's Kanzelu*, p. 151. 8. 1461. Taddeo Manfredi, by Enzola. From

the British Museum specimen. 9. 1464. Paul II. From the Paris specimen. Although this medal is made from one of Paul's medals of 1455, when he was Cardinal of San Marco, by reworking the model, there is no reason to suppose that it is not contemporary with the date which it bears. 10. 1470. Galeazzo Maria Sforza, probably by Caradosso. Friedländer, *Ital. Schanmtünzen*, pl. xxxvi. 11. 1472. Ercole I d'Este, by Baldassare Estense. Heiss, *Niccolò*, etc., pl. v. 1. 12. 13. 1479. Medals by Candida of Jehan Miette and Jean Carondelet respectively. The occurrence of the old form of 4 on these medals by an Italian is explained by their having been made at Lille and Paris. The same fact accounts for the old 7 on no. 12. But the new 7 occurs on no. 13; compare the variation on the coins of the Low Countries about this time, Table XXV. 9 ff. 14. 1481. Alfonso, Duke of Calabria, by Guazzalotti. Heiss, *Florence*, i, pl. iii. 5. 15. 1481. Mahomet II, by Constantius. British Museum. 16. 1485. Bernardo Gambara. Roman School. Rosenheim Collection. 17. 1485. Fabrizio Marliano. From the Berlin specimen. 18. 1489. Pietro Vettori. Heiss, *Florence*, i, p. 45, after Litta. The drawing may therefore be inaccurate. 19. 1495. Lorenzo Cigliamocchi. By himself? Heiss, *Florence*, i, pl. xiii. 2. 20. 1497. Pattern (bronze) for testoon of Lodovico il Moro. British Museum. Gneccchi, *Monete di Milano*, pl. xvii. 5.

TABLE XLV. ITALIAN MEDALS (*continued*).

1. c. 1498. Aless. Vecchiotti. Florentine. The figures 26 give his age; he was born in 1472. British Museum. 2. 1499. Giangiacomo Trivulzio. By Caradosso. British Museum. 3. 1502. John Greudner, by Niccolò Fiorentino or his school. British Museum. 4. 1503. Lodovico Marchese di Saluzzo and Marguerite de Foix. North Italian. 5. 1505. Ercole I d'Este. Heiss, *Niccolò*, etc., pl. vii. 4. 6. 1513 (written MD13). Louis XII. Probably Milanese work. British Museum. 7. 1515. Pietro Antonio da Castello. From the Paris specimen. 8. 1516. Marguerite de Foix, by "J. J. C." North Italian (Genoese?) work. British Museum. 9. 1538. Antonio Mula, by Spinelli of Venice. With the broken-topped 8 compare Table XLIII. 14. Struck. 10. 1539. Giov. Vinc. Dolci, by Giovanni Cavino of Padua. Struck. British Museum. 11. 1539. City of Venice. By Spinelli. Struck. British Museum. With the peculiar 5 compare that on the painting (also Venetian) by Lotto, Table XLII. 1. 12. 1540. Girolamo Quirini. By Spinelli of Venice. Struck. British Museum. For the 5 see preceding. 13. 1542. Venetian, by Spinelli. Struck. British Museum. For the 5 see no. 11. 14. 1549. Girolamo Zanc. By Spinelli of Venice. Struck. British Museum. For the 5 see no. 11.

TABLE XLVI. ITALIAN. VARIOUS.¹

1. 1423. Venice, monument of Tommaso Mocenigo, in SS. Paolo e Giovanni. See Friedländer, *Period. di Numism.* i, p. 146. From a squeeze supplied by the architect of St. Mark's through Mr. Horatio Brown. 2. 1428. "formato a di 17 di gienao 1428, formato nel Gabinetto (?) di Nicholo in gesso." Scratched in the wet stucco on the back of a stucco relief in the Ashmolean Museum (Fortnum). The relief has been rashly condemned, but also defended; consulted about the inscription, both Mr. Warner and Mr. Herbert independently, and without seeing the date, pronounced it to be of the XV cent. See Bode, *Florentiner Bildhauer* (1902), p. 162; *Florentine Sculptors* (London, 1908), p. 97, where it is assigned to Luca della Robbia. Other references, kindly supplied by Mr. C. F. Bell, are M. Reymond, *Les della Robbia* (1897), p. 111; Fortnum, *Athenaeum*, Dec. 18, 1897; Bode, *Denkmäler*, pl. 191, pp. 73-74; *Rivista d'Arte*, Jan. 1905. 3. 1459. Reggio d'Emilia. On a sculptured lunette in the Museo Civico. Venturi, *Storia dell'Arte italiana*, vi, p. 816. 4. 1471. On a statue of the Madonna by Francesco Laurana at Noto (Sicily). Rolfs, *Franz Laurana*, pl. 39. 5. 1474. On a

¹ See also Supplementary Tables L, LI.

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bust of Pietro di Francesco Mellini, Mus. Naz., Florence. Mr. Walter Ashburner, who kindly sends a note of this example, says that the whole inscription (which is *inside* the bust) is AN · 1474 | PETRI · MELLINI · FRANCISCI · FILII · IMAGO · HEC, and that while the second line is the work of a practised stone-cutter, the date is simply scratched in; it is, he thinks, though not part of the inscription, contemporary, perhaps done by the artist himself. 6. c. 1495. On the Loggia di San Paolo, Florence, under the two busts by Andrea della Robbia at the West and East ends of the series on the façade. The inscription is DALL' ANNO 1451 ALL' ANNO 1495. (Communicated by Mr. Walter Ashburner.) The left-hand (western) portion is illustrated in M. Reymond, *Sculpt. Flor.* ii, p. 182.

TABLE XLVII. ITALIAN. PRINTED BOOKS, ENGRAVINGS, ETC.

1. So-called "Tarocchi of Mauteugna". From series in the British Museum. These are not really playing cards. The first series (according to the arrangement adopted in the British Museum) is as early as 1467; the second (see no. 2, and the 6 and 7 in no. 1) may be 10 to 20 years later. But according to Kristeller this supposed second series is really the first. Apart from other reasons against this inverted arrangement, it may be noted that the numerals in the "Arithmetic" are more likely to have been added than removed in a second series. On these engravings see A. M. Hind, *Catalogue of Early Italian Engravings in the British Museum*, p. 224.
2. On a tablet held by figure of Arithmetic, on the so-called Tarocchi cards (one of the copies; the original series is without it). The tablet gives the numerals from 1 to 10, and abbreviations which have been read as a date 14085, but which seem to represent a sum of money (perhaps L(ire)40 S(oldi)5). From a specimen in the British Museum.
3. 1478. Treviso Arithmetic. D. E. Smith, *Rara Arithm.*, pp. 5, 6.
4. 1479. Venice, J. Marchesinus, *Mammotrectus*. British Museum, I A 19729.
5. 1484. Venice, Regiomontanus, *Ephemerides*. British Museum, I A 20533.
6. 1491. From Calander's Arithmetic, Florence, 1491. D. E. Smith, *op. cit.*, p. 47.
7. 1492. From Pellos' Arithmetic, Turin, 1492. Smith, *op. cit.*, p. 51.
8. 1509. Italian engraving (Paris and "Egenoe") after a German original, which accounts for the forms, especially of the 5. British Museum, v. 1-44.

TABLE XLVIII. INSCRIPTIONS FROM RHODES.

1. 1447. Graffito in Phileremos crypt. Belabre, *Rhodes of the Knights*, pp. 186, 187.
2. 1457. Graffito in chapel on top of tower on rampart. Belabre, p. 92.
3. 1459. Graffito in Phileremos crypt. Belabre, p. 186.
4. 1489. Shield on outwork of Spanish Tower, with arms of Pierre d'Aubusson. Belabre, p. 58.
5. 1490. Inscription of Cardinal Pierre d'Aubusson. Rottiers, *Monumens de Rhodes*, pl. lxxiv.
6. 1492. Inscription of Aymery d'Amboise. Rottiers, *Monumens de Rhodes*, pl. liii, fig. 9.
7. 1494. Graffito in Phileremos crypt. Belabre, p. 187.
8. 1495. Inscription of Cardinal Pierre d'Aubusson. Rottiers, *op. cit.*, pl. lxiii. 2.
9. 1497. Shield of Vilaraguts on a house. Belabre, p. 149.
10. 1502. Funerary slab of Thomas Newport, Spanish Tower. Belabre, p. 59.
11. 1506. Graffito in Phileremos crypt. Belabre, p. 186.
12. 1509. Slab in Street of the Knights. Belabre, p. 121.
13. 1511. Tombstone of Nicolas de Monmirel in courtyard of old Konak. Belabre, p. 164.
14. 1515. Shield of Carretto, Gate of Athanasios. Belabre, p. 66.
15. 1517. Shield of a knight. Belabre, p. 149.
16. 1518. Shield of Prior Flota, Street of the Knights. Belabre, p. 108.
17. 1519. Inscription of Jean Cleron in the Street of the Knights. Belabre, p. 109.
18. 1520. Shield on a house in the Street of the Knights. Belabre, p. 106.

TABLE XLIX. GERMAN (SUPPLEMENTARY).

1. 1383. Wertheim. Outside nave of the Evangelical Church. Mr. Lockner, who supplies the rubbing, questions the antiquity of the date; but the forms are excellent.
2. 1419.

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Wertheim. Outside tower of Evangelical Church. Rubbing by Mr. Lockner. 3. 1484. On a stone formerly in the possession of the Historischer Verein, now in the Fränkisches Museum at Würzburg, with a scene from St. Luke i. 26 ff. From a rubbing by Mr. Lockner. See Denzinger, p. 170. The 8 is broken away below. 4. 1492. Wertheim. Rathaus, outside wall. Rubbing by Mr. Lockner. The form of the 1 is not clear to me. 5. 1493. On the stone brackets supporting the figures of Adam and Eve by Riemenschneider, in the Fränkisches Museum, Würzburg. Rubbings by Mr. Lockner. 6. 1497. On arch of passage through the Choir in the Church of St. Burkard, Würzburg. Denzinger, p. 170. From a drawing by Mr. Lockner. 7. 1498. Very neatly cut on a pillar in the church of the Monastery of Brombach near Wertheim. Drawing by Mr. Lockner. 8. 1514. In the Fränkisches Museum, Würzburg; armorial slab of Bishop Lorenz von Bibra, from the old Landgerichtsgebäude. From a rubbing by Mr. Lockner.

TABLE I. MISCELLANEOUS AND SUPPLEMENTARY. XIII-XV CENT.

1. circa 1260? Astrolabe in British Museum. The style of the numerals would be equally possible, if not more probable, at a rather later date. 2. 1276. MS. Cambridge University Library, *Ii* 3. 3. Treatise on the astrolabe by Macha-allah (Astrolabium Messehalle). See W. E. A. Axon, *Proc. Manchester Lit. and Phil. Soc.*, 1876, p. 175; and W. W. Skeat's ed. of Chaucer's *Treatise on the Astrolabe* (E. E. T. S. and Chaucer Soc., 1872), pp. xxiv and 88 ff. Mr. S. C. Cockerell, who kindly supplied a note of the forms of the numerals, is inclined to suggest Liège or neighbourhood as the source of the MS. 3. 1326. Astrolabe in the British Museum bearing this date. 4. 1342. Astrolabe in the British Museum, signed "Blakene me fecit anno doⁱ 1342." Mentioned *Arch. Journ.* xi. 30. 5. 1391. Painting (triptych) by Spinello Aretino at Florence (R. Galleria Antica e Moderna: Virgin and Child and SS. Paulinus, John Baptist, Andrew, and Matthew). In relief below central panel. From a photograph. Communicated by Mr. A. H. S. Yeames. The lettering is the same as on the halo of the Virgin. The inscription appears to be HOC · OPVS · PINXIS · SPINELLVS · LVCE · ATITIO · IO · 1 · A · 1391. Mr. Yeames remarks that it may have been added or touched up at a later date, but has not that appearance. 6. 1410. Seal of Fountains Abbey. Impression attached to document of 1424 at Durham. See J. R. Walbran, *Memorials of the Abbey of St. Mary of Fountains* (Surtees Society, 1863), p. lxix. Communicated by Mr. W. H. St. John Hope. 7. 1417. On the under side of the base of a chalice of gilt metal with silver bowl and four small nielli around the knop. *Arch. Journ.* xi, p. 72 (where it is read 1517). The provenance is not stated. 8. 1444. Florence, Santa Trinità. Inscription on sarcophagus of Giuliano Davanzati. 9. 1451. Armorial tablet of Ludovico dei Caccialupi of Bologna, Podestà of Florence, 1451. Court of Bargello, Florence. 10. 1451. Flemish painting (Angel of the Annunciation), at present in the possession of the Spanish Art Gallery. Although the forms seem flatly to contradict most of the other Flemish evidence, I have included this example. The picture came from Spain. Communicated by Mr. E. D. MacLagan. 11. 1452. German painting (1580-'55; *Annunciation*) in the Victoria and Albert Museum. Communicated by Mr. E. D. MacLagan. The date is written on a slant. It has generally been read 1472, but there can be little doubt that the figure which has been taken for a 7 is a 5. 12. 1453. Portable brass sundial (German) in British Museum.

TABLE II. MISCELLANEOUS AND SUPPLEMENTARY. XV-XVI CENT.

1. 1461. Italian (Florentine) engraving in the British Museum (Easter Table). A. M. Hind, *Catalogue of Early Italian Engravings*, A. i. 9. Communicated by Mr. Hind. 2. 1467. Bruzzano, near Milan. Carved on entrance of a villa. *Rassegna d'Arte*, 1903, p. 88. 3. 1470. Armorial tablet of Iohannes de Panaleutiis of Cività Castellana, Podestà of Florence,

1470. Court of Bargello, Florence. 4. 1485. On Isbury's Almshouses, Lambourne, Berks (Rubbing, Soc. of Antiquaries). Communicated by Mr. Mill Stephenson. The 5, which is imperfect on the rubbing (and on the original?), is of the h-shape usual at this time in England.
5. 1489. On painted panels in south aisle of Choir of St. George's Chapel, Windsor. Communicated by Mr. W. H. St. John Hope. 6. 1491. Viennese astrolabe in the British Museum, made by "Pruder Hanns Dorn Prediger Orden von Wien anno Domini 1491". 7. 1492. Hurley, Berks. Brass of John Doyly. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson.
8. 1492. Stanford Rivers, Essex. Brass of Thos. Greville. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson. 9. 1497. Quarry in window at St. Cross. *Journ. Brit. Arch. Assoc.* ix (1854), pl. xxxiv; *Arch. Journ.* 1850, p. 76. Drawing by Mr. Mill Stephenson. 10. 1497. "Anathema" cup at Pembroke College, Cambridge. From a rubbing by Mr. Ellis Minns. On the under side of the foot. The inscription is given by Mr. Minns: "T. langton Winton eps aule pembrochie olim foci⁹ dedit hanc tasseā cooptā eidē aule ·1·4·9·7" and also "qui alienauerit anathema sit. lxxvii. m̃c." See also J. E. Foster and T. D. Atkinson, *Old Cambridge Plate*, p. 6, no. 8. The hall-mark is of 1481-2. The top is lost. 11. 1498. Norwich, St. Stephen's. Brass of John ffrankish. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson.
12. 1499. Bell (probably Flemish or Dutch) at Swinton in Berwickshire: see *First Report of Ancient Monuments Commission (Scotland)*, p. 49, No. 242. Communicated by Mr. George Macdonald. 13. 1513. Brading, I.W. Cut on stone in niche behind pulpit in the church. Communicated by Mr. Percy Stone. This has been read Mld₁₃, but the M is really an \bar{A} , and the top bar of this letter has run into the top of the following l making it look like l; while the supposed d is an h-shaped 5 reversed. 14. 1522. Windsor. Below the paintings on north side of Oxenbridge Chapel, St. George's Chapel. Communicated by Mr. W. H. St. John Hope.
15. 1526. Window in South Mimms Church, Middlesex. T. Wright, *Essays*, ii, p. 81. 16. 1530. E. window in vestry, Enfield, on a medallion with the arms of Thomas Lord Roose. Gough ii (1), p. 140, and pl. xlix*. 17. 1531. On an English leaden token, probably of John Saltcot, Abbot of Hyde, 1530-1538. See *Journ. Brit. Arch. Assoc.* ix, p. 432.

IX.—*St. Paul's School before Colet.* By A. F. LEACH, *Esq., M.A., F.S.A.*

Read 25th November, 1909.

To talk of St. Paul's School before Colet will to most people seem pure absurdity. Even those who know there was such a school think that it was only a poor sort of choir-boys' school, and would be inclined to apply to it, *mutatis mutandis*, the famous Scotch bull on the roads in the Highlands:

If you'd seen these roads before they were made,
You'd hold up your hands and bless General Wade.

Yet in fact the difficulty in writing of St. Paul's School before Colet arises not from a deficiency but from a superfluity of material.

Immemorial custom prescribed, and the law of the Church, the canon law, in terms directed, that every cathedral church and every other collegiate church of sufficient means should maintain a grammar school. This grammar school was not only, or mainly, or indeed hardly at all, a choir school, a school for choristers, but was a school for the city, for the children of the citizens of the cathedral city, in which not singing and the psalms, not reading or the prayers of the Church, were taught, but the art or science of grammar and dialectic, that is to say, the classics, as the classics were understood at a time when Latin was the only door to both modern and ancient learning. There was indeed, equally of course, attached to every cathedral church, a song school, which was a real choir school, a school in which not only singing but elementary subjects, reading, and the rudiments of grammar were taught, and which was mainly, though not wholly, attended by the choir-boys, or queristers, as they were called in the fourteenth century, as they are at Winchester to this day. But the two schools were entirely distinct; were under different officers, and had no connexion with one another, except that they both belonged to the same church. While the song school was invariably called the song school, or the music school, the grammar school was called *par excellence* "the school", sometimes the school of the cathedral church, more often the school of the city. As the proper name of Winchester School is the grammar school of St. Mary's College by Winchester, but it is called Winchester *simpliciter*, so while the proper name of St. Paul's School was the grammar school of the cathedral church of St. Paul, London, it

was in early times called simply the School of London. Afterwards, when schools in London multiplied, it was called St. Paul's School; but both before and after Colet, St. Paul's School meant as it means now, not the choristers' school or the choir school, but the grammar school of St. Paul's cathedral church.

In the twelfth century, and until the reign of Henry VIII, a grammar school was commonly, and until about 1450, almost invariably spoken of in the plural, *scole grammaticales*, and the schoolmaster was *scolarum magister*. The reason I do not pretend to assign. People still talk of being "in the schools" at Oxford, when they are attending a single school, of classics, of history, or mathematics. In the middle ages they talked of attending "the grammar schools" and of the "schools master". Whether it was from the multiplicity of subjects taught in the single grammar school, or that the grammar school was emphatically the school of schools, I do not know. It is noteworthy because a great deal of misconception has arisen from the plural having been wrongly interpreted to mean more schools than one.

These dogmas be general. But they apply with all their force to the particular school of St. Paul's. How ancient St. Paul's School may be we cannot tell. All analogy is in favour of its being coeval with the church. As has been shown elsewhere, St. Peter's School at York, the cathedral grammar school, can trace its descent from the year 736. London is not so ancient as York, nor St. Paul's cathedral church as St. Peter's minster. But, just as at York the earliest existing records of the minster show St. Peter's School existing, so the earliest existing records of St. Paul's show St. Paul's School existing. The earliest actual records there as here are post-Conquest, but here, as there, these earliest records treat the existence of the school as a matter of course. In the case of York we have other evidence which shows the existence of the school in early English days long before the Conquest. In the case of Warwick grammar school, maintained by Warwick collegiate church, the earliest post-Conquest document refers to the school as existing in the days of King Edward before the Conquest. At St. Paul's School we have no direct evidence of this kind. But it cannot be doubted that the second city in the kingdom in point of rank, Winchester still being the nominal capital, and the first in point of wealth and population, had its grammar school, and did not lag behind the capital of the North, or a comparatively unimportant place like Warwick, in its public provision for secondary education.

The earliest direct record of St. Paul's School is a deed, a copy of which is preserved in the thirteenth-century chartulary or deed-book of St. Paul's, known as *Liber A pilosus* from its hairy white deerskin covers. It was executed by Richard I. de Belmeis, "by the grace of God, minister of the church of London,"

and addressed "to William the dean, and the whole assembly (*conventui*) of brethren":

Know ye, my dearest sons, that I have confirmed to our beloved Hugh, schoolmaster, in virtue of the dignity of his mastership, and to his successors in the same dignity, the place (*stationem*) of Master Durand in the angle of the tower, namely where Dean William, by my command, placed him, between Robert de Auco and Odo.

I grant to him also and to the privilege of the school the custody of all books of our church.

That is, the schoolmaster was also to act as librarian, and the letter goes on to direct that the keys of the bookcases near the altar, just made by the bishop's order, are to be given him.

Richard became bishop 1108, and died 1128. The deed is between 1111, when William became dean, and 1128, and probably not long after 1111, as the bishop was paralysed for some years before he died. The next document we have is addressed by the same bishop to the same dean, and, after the death or retirement of Hugh, grants to

Henry, my canon, foster-son (*nutrito*) of Master Hugh, St. Paul's School, as honourably as the church ever held it at its best and most honourable wise: and the land of the court which the aforesaid Hugh inclosed for his house there; and the meadow which I gave the said Hugh in Fulham, viz. four acres, from the ditch to Thames, at 12*d.* a year; and in alms (*i.e.* in perpetuity, rent free) the tithes of Ealing and the tithes of Madeley.

This document was printed in Knight's *Life of Colet*, with some odd mistakes. The actual deed itself is extant (plate XX, A), as well as the copy in the chartulary. In the chartulary these deeds, and others to be mentioned, are headed: "Of the schoolmaster and chancellor, seven deeds," and in a later deed by Bishop Richard III., 1189 to 1198, a thirteenth-century hand has written: "Note of tithes granted to the schoolmaster of St. Paul's, now the chancellor." We have, therefore, direct evidence that the schoolmaster was afterwards called the chancellor, as at York we have conversely a statement in the fourteenth-century statutes that the chancellor was "formerly called the schoolmaster". When exactly the change of title began is not clear. For both at York and London, as at Edward the Confessor's foundation of Exeter cathedral church, and Harold's foundation of the collegiate church of the Holy Cross at Waltham, the title used was schoolmaster. But at Salisbury, a post-Conquest creation, the foundation statutes of the Norman bishop, "Saint" Osmund, about 1090, call him alternately chancellor and *archischola*, or schoolmaster. At St. Paul's the title chancellor prevailed from 1205 onwards.

The tower, by which Canon Durand built, was, as Dugdale says, the "clochier or bell-tower" which stood at the east end of St. Paul's. It was detached, like the towers of Chichester cathedral church and New College, Oxford, and many of the old campaniles. Its bell was used as the town bell as well as the church bell, to

summon the citizens to their folk-moots in the old *forum* or market-place on the north-east side of St. Paul's where Paul's Cross afterwards stood. The school, separated by the tower from the market-place, was thus in the very middle of things, between the two chief places of assembly, the chief church and the chief market. A later writer, Miss Hackett, attempted to correct Dugdale and transported the school outside the close and churchyard altogether, and half the length of the church westward, placing it down a back lane in a far less accessible site. She quoted in support a deed of Eustace, count of Boulogne, granting to the bishop "a mansion-place, whence Canon Durand had removed (*abstulerat*) his house because of the earl's claims on it". The quotation destroys her argument, as it shows that, while the canon had originally built outside the churchyard on the south, he had moved to a site further east, which the bishop gave him. Here, in the churchyard and not outside it, at the east and not the south of it, we find the school in the fifteenth century; and when Colet built his new school in the sixteenth century he built, as we shall see, next door to the old school. Miss Hackett has in this, as in other things, confounded the grammar school with the choir-boys' house, and, by consequence, the schoolmaster with the choir-boys' master.

Canon Henry, the schoolmaster, Hugh's successor, was the hero of a document of a remarkable kind, the original of which is also extant at St. Paul's (plate XX, B). It is very short:

Henry, by the grace of God, minister of the church of Winchester, to the chapter of St. Paul's, and William the archdeacon, and their ministers, health.

I command you by your obedience that, after three summonses, you pronounce sentence of excommunication against those who without the licence of Henry the schoolmaster presume to lecture, in the whole city of London, except those who teach the schools of St. Mary-le-Bow and St. Martin-le-Grand.

The historian Dugdale's comment on this runs, "Which Henry was so respected by Henry de Blois, Bishop of Winchester, that he commanded none should teach school in London without his licence except the schoolmasters of St. Mary-le-Bow and St. Martin-le-Grand." It does not seem to have struck him as odd that a bishop of Winchester should have power to issue decrees to the city of London, nor that the decree itself was a somewhat remarkable way of showing respect to a schoolmaster's ability. The simple fact is that the schoolmaster at St. Paul's, like the schoolmasters of the grammar schools of all other cathedral and collegiate churches, enjoyed a monopoly of keeping school within the district ecclesiastically governed by the church to which he belonged. The decree was not due to any special respect which Bishop Henry of Winchester entertained for Schoolmaster Henry of London. It was issued in the ordinary course of business by the bishop, who was, by commission from the Pope, in charge of the

diocese of London from 1138 to 1140, during the vacancy of the see, to enforce the legal monopoly of St. Paul's School against some unspecified rivals. Similar documents in the thirteenth and fourteenth centuries, enforcing a like monopoly by threats of excommunication, could be cited from York, Canterbury, and Beverley. At Winchester the same Bishop Henry was concerned in a similar case about this time, in which the Winchester schoolmaster enforced his monopoly against a rival who appealed to the Pope himself, while an attempt at the same thing was made there far on in the seventeenth century. The reason for the exemptions of St. Martin's-le-Grand and St. Mary-le-Bow from the monopoly was not that Henry of Winchester "specially respected" the schoolmasters there, but that St. Martin's-le-Grand, being an ancient collegiate church of Early English origin long before the Conquest, and reckoned as a "Royal Free Chapel", was exempt from the jurisdiction of the bishop, the ordinary. So was the church of St. Mary-le-Bow, or of the Arches, the seat of the court of the Arches, as a "peculiar" of the Archbishop of Canterbury. Both, therefore, could keep grammar schools in their precincts, and did unhindered by St. Paul's, and some of their masters are mentioned in the thirteenth and fifteenth centuries.

In a famous description of London, written about 1170, prefixed to a biography of his former master, Thomas à Becket, Fitzstephen, clerk and judge, bears singular testimony to the fact that these three schools were the only recognized schools of London. In London he says

The three chief churches have well-frequented schools of ancient privilege and dignity; though sometimes, through personal favour to some one famous in philosophy, more schools are allowed. On feast days the Masters hold assemblies at the churches *en fête*. He then describes how the elder students hold disputations in logic and rhetoric, while

the boys of the different schools vie with each other in verses; or dispute on the principles of grammar, or the rules of preterites and supines (*i. e.* syntax, which was not then a part of grammar, but of dialectic); others, in epigrams, rhymes, and verses, use the old freedom of the highway, with Fescennine licence freely scourge their schoolfellows without mentioning names, hurl abuse and fun at each other, with Socratic wit gird at the faults of their schoolfellows, or even of their elders, while the audience wrinkle their noses as they roar with laughter.

The last words are a quotation from Persius, by this twelfth-century author, who, according to most writers on early schools, could have only learnt at a choir school to stumble through the Psalms. Becket must have attended St. Paul's School under Schoolmaster Henry. He was born in a house on the site of which now stands the Mercers' Hall, and Fitzstephen describes how, having "passed the years of his infancy, boyhood, and youth at home, and attended the school of the city, he when a young man studied at Paris". That is, while Becket was a boy,

about 1118, he attended St. Paul's School as a day-boy; when he became a young man, he was, as was then customary for aspiring literates, sent to Paris University; the first symptoms of Oxford University not appearing until some twelve years afterwards.

Fitzstephen's mention of the three principal churches which kept schools has given rise to some very wild guessing. The learned Stow rightly attributed the chief school to St. Paul's. But he assigned the other two to Westminster Abbey and St. Saviour's at Bermondsey, oblivious of the fact that neither of them was in London. Both were monasteries, which did not keep public schools, and were forbidden to do so except for their own novices. Many later documents, as well as the letter in favour of Schoolmaster Henry's monopoly, show that he was clearly wrong. There is no trace of any school at Westminster till the reign of Edward III, and then only of twelve charity boys in the almonry of the monastery. Among the statutes of St. Paul's, collected by Dean Baldock between 1294 and 1304, is one "Of the office and power of the chancellor". By this time the chancellor had ceased to teach school in person; and his duties as regards it were only "to appoint an M.A. to the grammar school, and to keep the school in proper repair", his principal office being, like the chancellor of the kingdom, to keep the seal and prepare legal documents. The statute says, "Under him are all scholars living in the city, except those of the Arches and St. Martin-le-Grand, who claim to be privileged in this as in other things." At the time of these statutes, the chancellor still had to make out the table of readers of the lessons in the church, to hear the readers so that they did not make mistakes, and to keep the clerks of the choir in order. A later statute, the date of which does not appear, headed "Of the grammar schoolmaster", says, "the schoolmaster, as vice-chancellor, is to write, or get written, the table of lessons." In the same statute the precentor and his deputy, the song schoolmaster, appear separately. It is expressly provided that the grammar schoolmaster "is to attend choir in a fitting habit, and read the first lesson on double [*i.e.* the greater] feasts, and to hear those who are to read and correct their mistakes. Also, according to custom, he is to hold disputations of dialectic and philosophy at St. Bartholomew's on St. Bartholomew's Day, and dispute at Holy Trinity."

Stow, who wrote in 1590, describes the disputations of schoolboys at St. Bartholomew's as having still gone on in his boyhood. The boys, he says, repaired

unto the churchyard of St. Bartholomew, where upon a bank boarded about under a tree, some one scholar hath stepped up and there hath apposed (the examiners at Winchester are still called posers, and the prize day at St. Paul's School itself is still called apposition day) and answered, till he were by some better scholar overcome and put down; and then the overcomer taking the place did like as the first, and in the end the best apposers and answerers had rewards.

The reason for the selection of St. Bartholomew's, Smithfield, was that, as appears from Fitzstephen, Smithfield, that "suburban level", as he calls it, was the usual resort of London, and especially schoolboy London, for all forms of sport and amusement. Here, even in the twelfth century, on Shrove Tuesday, after a cock-fight in the school in the morning, they played football; on its flooded marshes they skated on skates made of flat bones, such as are still to be seen in plenty in the British Museum and in the museum at York. It was not because St. Bartholomew's was a priory, but because it afforded an open space, that Smithfield was the resort of the schools of London. The boys resorted there before the priory was built, and continued to resort there afterwards, when Smithfield was gradually surrounded by St. Bartholomew's priory, hospital, and other buildings.

Right down to the time of Henry VI. St. Paul's with St. Martin's-le-Grand and the school of the Arches were the only recognized public schools of London. Unfortunately, nearly all the records of St. Paul's cathedral church from the fourteenth century till after the Reformation have disappeared. One solitary chapter act book, or minute book, in the middle of the fifteenth century survives, but it is almost entirely concerned with continual renewals of leave of absence to residentiary canons, the distribution of profits among them, and the correction of vicars choral for devotion to the forbidden sex. There has been a total disappearance of books of the kind which have enabled the grammar school at York to be traced continuously from the thirteenth century to the present time.

A transcript of one book has, however, been preserved which ought to have hindered writers on the subject of St. Paul's School from confounding the grammar school with the choristers' school. This is a copy of "the register of the almonry of St. Paul's".¹ To the early cathedral churches a hospital or almshouse was as essential an appendage as a choir and a grammar school. Some of these hospitals still survive. The Dean of Hereford is still *ex officio* Master of St. Ethelbert's Hospital, attached to St. Ethelbert's cathedral church. York had its St. Peter's Hospital, afterwards called St. Leonard's Hospital, the ruins of the chapel of which yet stand a stone's-throw from the minster. St. Paul's had its almonry, a Norman French word for almshouse, and its almoner. In some cathedral statutes made in 1263 the almoner was enjoined to distribute alms according to the method ordained by those who gave endowments for the purpose; poor people and beggars, who died in or near the churchyard, he was to bury gratis without delay. He was to have, moreover,

daily with him eight boys fit for the service of the Church, whom he is to have instructed either by himself or by another master in matters pertaining to the service of the Church and in literature (*i. e.* grammar) and good behaviour, taking no payment for the same.

¹ Brit. Mus. Harl. MS. 1080.

Long before this, in the deanery of Ralph de Diceto, between 1180 and 1200, it was ordered that, "as the boys of the almonry ought to live on alms" (or, as we should say, "charity boys are to live on charity"), "they are to sit on the ground in the canons' houses, not with the vicars at table." The resident canons on certain days had to entertain the choir-singers, or vicars choral and choir-boys at dinner. The reason is assigned "lest they become uppish and when they go back to the almonry despise the food there and blame their master". Now these almonry boys were the choir-boys, who learnt singing in the choir school, which the precentor had to maintain. But, as the fourteenth-century almoner records, against himself, in his register:

If the almoner does not keep a clerk to teach the choristers grammar, the school-master of St. Paul's claims 5s. a year for teaching them, though he ought to demand nothing for them, because he keeps the school for them, as the treasurer of St. Paul's once alleged before the dean and chapter is to be found in ancient documents.

The attempt thus made by the treasurer to make the grammar school into a choir school thus early is curious. The allegation that the grammar school was kept for the choristers is historically untrue, though it is probably true that the choristers ought to have been admitted free to it. At Beverley, in 1312, when the grammar schoolmaster wished to make all choristers beyond seven, the original number, who attended the grammar school, pay fees, the succentor, the song schoolmaster, contended that he was bound to teach all the choristers free. After inquiry by the chapter into the "ancient customs" of the church, it was decided that the grammar schoolmaster was bound to teach them gratis, but the succentor was not to defraud him by admitting boys to the choir merely for the sake of getting free education in the grammar school. Whatever may have been the choristers' rights in the matter, the fact that the grammar schoolmaster at St. Paul's claimed and received payment for them shows with absolute conclusiveness that the grammar school was not a mere choir school, or choir-boys' school.

Yet Mr. Lupton, the late surmaster of St. Paul's School, in his *Life of Colet*, cites the will of one of the almoners, William of Tolleshunt, made in 1329, in favour of those almonry boys, as proof that the cathedral school "not only existed and flourished but contained within itself the germs of a University". By the will in question this almoner gave a shilling to each senior and sixpence to each junior of "the boys of the church whom I educated in the almonry", and also gave them his grammar books "and the volumes of boy-bishops' sermons, preached in my time, to remain in the almonry for ever for their use". Says Mr. Lupton: "There were works on Logic, on Physic, on Medicine, on Civil Law . . . all were expressly bequeathed to the use of the boys." Yes: but while

the grammar books were for the use of the boys in the almonry, these other books were "to be lent to boys apt for school learning, *when they have left the almonry*, due security being given for their return". So that the very words cited to show that this school was something more than a grammar school prove the exact opposite; and this very will cited to show that the school in question was St. Paul's cathedral grammar school shows that it was a distinct foundation and intended only for the eight choir-boys in the almonry. That these eight boys, afterwards increased to ten, were the choir-boys, is shown by the fact that, in 1315, Bishop Richard of Newport gave to this very William of Tolleshunt, almoner, one of his executors, and to the almoner for the time being, a house near St. Paul's, "for the support of one or two of the almonry boys for two years after they have changed their voices." In lists of payments at obits and on anniversaries, the boys are sometimes called the almonry boys, sometimes the choristers. Mr. Lupton in this matter has been misled by a learned lady, Miss Hackett, who devoted herself in the first quarter of the nineteenth century to the interests of the choir-boys of St. Paul's, who then were left without any proper schooling or care at all. She, with great energy, routed out all she could find in the records of St. Paul's, and succeeded in establishing in the Court of Chancery the claims of the choir-boys on the revenues of the almonry. But her zeal outran her discretion, as whenever she saw anything about a school, or schoolboys, she at once attributed it to the choir school and choir-boys. She attacked the chancellor as well as the almoner, on the ground that the St. Paul's grammar school was for the choir-boys. In this she failed, being, of course, hopelessly wrong. But she did a great deal of harm to the cathedral grammar schools in general by imbuing people with the notion that they were mere choir schools. Mr. Lupton has followed her into other mistakes. Thus he makes the grammar school to have been "in Sharmoveres [now Sermon] Lane". Sharmoveres is a name of naught. It is simply a misreading of "Sarmoners", *i.e.* Sermoners' Lane, from a house which is said, in a document of Edward I.'s reign, to have belonged to "Adam le Sermoner". Sermon Lane is the modern shortening. What Mr. Lupton calls the grammar school was not a school, but the house above mentioned, bequeathed to the almonry. Sermon Lane is on the south side of St. Paul's, about the middle of the church. The grammar school was, as we have seen, right at the east end in the churchyard, and quite close to the church; the almonry itself was north of the church.

From 1345, the date of the almonry register, in the absence of cathedral documents, we do not hear of the grammar school again specifically until 1393. In that year a petition was presented to the king in Parliament by the Archbishop of Canterbury, the Bishop of London, the Dean of St. Martin's-le-Grand,

and the Chancellor of St. Paul's, to assert the privileges of the three old schools, both in London and the suburbs, and to put down

certain strangers feigning themselves Masters of Grammar, not sufficiently learned in that faculty, who against law and custom hold general Schools of Grammar, in deceit and fraud of children, to the great prejudice of your lieges and of the jurisdiction of Holy Church.

They say that the three masters of the schools of St. Paul's, of the Arches, and St. Martin's, "had proceeded against the said strange masters in Court Christian, who had gone to the secular courts for an inhibition." They ask, therefore, for letters under the privy seal directed to the mayor and aldermen to command them, that

as well in consideration of the king's interest in the case by reason of his Free Chapel (St. Martin's-le-Grand) as of the prejudice to the archbishop, bishop, and others before mentioned, they do not intermeddle, nor attempt to stay the proceedings in the ecclesiastical court.

It would appear that there was need in London for more schools than the three privileged ones, as half a century later, in 1447, a petition was presented to Parliament by the parsons of four London churches: Allhallows the Great; St. Andrew's, Holborn; St. Peter's, Cornhill; and St. Mary's, Colechurch (the parson of whom was also Master of the Hospital of St. Thomas of Acon, now the Mercers' Hall) for leave to establish permanent grammar schools in their respective parishes, under the patronage and government of the parson for the time being. The preamble to their petition is extremely interesting, both as demonstrating beyond all doubt that St. Paul's School was not a mere choir-boys' school, and also as showing how widespread was, or had been, the provision for secondary education. They refer to

the great number of grammar schools that some time were in divers parts of this realm, besides those that were in London, and how few be in these days, and the great hurt that is caused of this, not only in the spiritual part of the Church, where oftentimes it appeareth too openly in some persons with great shame, but also in the temporal part, to whom also it is full expedient to have competent knowledge for many causes.

They then proceed

Forasmuch as to the City of London is the common concourse of this land, wherein is great multitude of young people, not only born and brought forth in the same city, but also of many other parts of this land, some for lack of schoolmasters in their own country for to be informed of grammar there, and some for the great alms of lords, merchants, and other, the which is in London more plenteously done than in many other places of this realm to such poor creatures as never should have been brought to so great virtue and cunning as they have, had it not been by means of the alms aforesaid. . . . Wherefore it were expedient that in London were a sufficient number of schools and good informers

in grammar, and not for the singular avail of two or three persons grievously to hurt the multitude of young people. . . . For where there is great number of learners and few teachers, and all the learners be compelled to go to the same few teachers, the masters wax rich in money and the learners poor in cunning, as experience openly sheweth, against all virtue and order of the public weal.

After this powerful attack on the system of monopoly, the petitioners got their bill, but in the very modified form that the schools were to be established "by the advice of the Ordinary or otherwise of the Archbishop of Canterbury for the time being". This private Act is said to have been the origin of the Mercers' School. It is extremely doubtful how much was done under the Act. A year before we find an ordinance by the Archbishop of Canterbury and the bishop, who was the ordinary for most of London, repeating the complaint of 1393, that

whereas many and divers persons not adequately learned in the art of grammar have presumed to keep common grammar schools in the City, thereby wickedly defrauding some boys, and their friends who maintain them at school.

They accordingly ordered that

there shall be five grammar schools only and no more in the said City, namely, one in St. Paul's churchyard, another in the church of St. Martin-le-Grand, a third in the church of Blessed Mary of the Arches, a fourth in the church of St. Dunstan's in the East, and a fifth in St. Anthony's Hospital.

These ordinances were confirmed by letters patent of the King, 6th May, 24 Henry VI., A.D. 1446. There is considerable doubt whether even the Mercers' School was established before 1540, and no evidence has been found of schools at All Saints', St. Andrew's, or St. Peter's, Cornhill. The archbishop and bishop probably nipped them in the bud. Half a century of struggle therefore resulted only in the addition of two to the number of the authorized grammar schools, and neither of those in the churches of the petitioners of 1447. St. Paul's continued to flourish. James Garnon, master of St. Paul's School, is mentioned as taking his degree in grammar at Oxford in 1449. An epigram by the "Schole-mayster at Paules" on Richard III.'s proclamation on the beheading of Hastings in 1483, is reported by Holinshed:

Here is a gay goodlie cast
Foul cast away for haste.

We now come to the Colet era, round which has gathered a cloud of confusion and error. In the Rev. R. B. Gardiner's *Register of St. Paul's School* it is written:

About the close of the reign of Henry VII. John Colet, Dean of St. Paul's, . . . commenced the work of educational reform in England by establishing a school in London,

which though originally founded in honour of "Christ Jesu *in puericia* and of his blessyd Mother Mary", soon became known (probably from the situation of its buildings) as St. Paul's School. Colet during his travels abroad had perceived the importance of the revival of learning and desired to equip the children of his own country to take their place by the side of the learned men of other nations.

Then follows a collection of dates, called "Fasti of St. Paul's School".

1508. The School was begun according to Alexander Nowel, and Polydore Virgil mentions its foundation at the end of his account of the reign of Henry VII.

1509. The School was begun according to Grafton and George Lily.

1510. The School was begun according to Holinshed and Cooper.

All this doubt about the beginning of the school is unnecessary, and the account of the origin of its name is as erroneous as the notion that with it Colet started any new era of education. In the Mercers' Records, from which Mr. Gardiner freely quotes, and for access to which some years ago I was indebted to Lord Selborne and Mr. (now Sir) John Watney, the whole story is told by Colet himself in the introduction to a book he had made containing copies of all the documents relating to the foundation of the school. After saying that he had inherited wealth from his father, and wished to spend it for the best purposes,

seeing in my judgment nothing better in this world nor more commodious to Christ's Church, that is to say, all Christendom, and for the reparation of the same now sorrowfully decayed both in good manners and clean literature than good institution and bringing up of children in wisdom and good living in good letters and laudable conversation, in the year A.D. 1508 began to edify in the East end of the churchyard of Paul's a school-house of stone for children to be taught, free, to the number of 153 . . . and also builded a mansion adjoining to the said school at the north side for the masters to dwell in. And in A.D. 1512 full accomplished and finished the same in every point.

A minute of the Court of the Mercers, on 17th August, 1510, copied in the book, gives even greater exactness. "The dean and chapter," it says, "had sealed a deed of estate by the which they (the Mercers) should receive possession of the ground whereupon the school-house *is* builded and the schoolmaster's house *shall* be builded." So that the school-house was begun in 1508, finished by August, 1510; and the master's house begun after that date and finished by 1512. The school was built before the legal proceedings connected with the foundation were begun. These began on 9th April, 1510, when the Mercers were told that Colet was "disposed for the foundation of his school to mortify", *i.e.* vest in the company under a licence in mortmain, "certain lands which he would that the company should have, if they would be bound to maintain the said school". After several interviews to satisfy the company that their pockets ran no risk, they agreed to take the governorship. On 6th June, 1510 (wrongly given by Mr. Gardiner as 1511), letters patent were issued by the Crown granting the

necessary licence in mortmain to the Mercers to take and hold lands for the use of the school and masters, of the value of £53 a year. On 27th July, 1510, the first legal documents were executed. They were just what we should expect if Colet was taking over and re-endowing St. Paul's cathedral grammar school, and not at all what we should expect if his was a totally new departure, an original creation, the establishment not only of a new school, but of a new system of education, where none had existed before. First came the consent of the chancellor of St. Paul's to the statutes and orders made and to be made by Colet for the school he has "erected in the churchyard", and a confirmation of the same by the dean and chapter. This, however, might be said to have been given only because of the general powers of chancellor and chapter over all schools in London. The same cannot be said of another document executed the same day by the chapter. This document begins with a recital of great historical interest from more points than one:

By ancient, lawful and laudable prescription, as well as by the statutes and laudable customs of the said cathedral church, the master of the grammar school of the said church of St. Paul's, London, for the time being, has always been a member of our body, and had the right of entry to the choir of the said church during divine service, and of a seat in a fitting stall in the accustomed place there, whether he is a priest or a layman, so long as he appears in a proper surplice.

A most interesting fact is that at St. Paul's, as at St. Peter's, York, and at Winchester College, it was in the fifteenth and sixteenth centuries by no means uncommon to have a lay head-master. The document seems almost to have been concocted for the purpose of correcting erroneous ideas about the school, as it then goes on carefully by another recital to distinguish the grammar school-master from the almonry schoolmaster:

And whereas both in his own person and for his own house or inn, he has always enjoyed the same liberty as the master of the house of the alms boys,

i.e. the choristers. The chapter then proceed:

Therefore we *take into our body and that of our church*, Master William Lyly, the first master of the new school of St. Paul's, and his successors in office, and that he and his successors may exercise their office quietly in the premises (the stall and services) and be diligent in the teaching of the boys . . . we grant that the master, the school, and the house may be free from all parochial exactions, and enjoy the same privilege as the alms boys' house of the said church enjoys, and that in that house they need recognize no curate except the cardinals of St. Paul's, from whom they ought to receive all sacraments and sacramentals.

Curate, of course, means a *curé*, a person with cure of souls; and the cardinals were the senior minor canons.

In consideration of this grant the Mercers' Company was to pay the chapter £3 a year. Nothing surely could be more conclusive than this. The dean and chapter recite the old customs applicable to the cathedral grammar school-master, and apply them to what they and Colet himself habitually call "the New School of Paul's".

Nor is that all. Six months afterwards, 28th March, 1511, the actual site and buildings were assured to three members of the company by two separate deeds. One of these granted the piece of land on which "is now built the house or grammar school of stone, with a house for the master", while the other granted "the grammar house or messuage, *lately* called St. Paul's School, near St. Austin's Gate, and the four shops underneath".

Thus it appears that the old cathedral grammar school was carried on in the old building right up to the time when Colet's new school was built close by it, and then the old school, "stock, lock, and barrel," with its buildings, rights and privileges, and belongings, not excepting its name, was transferred to the new school.

Here, again, the thread of the narrative must be broken to point out that Mr. Lupton and Mr. Gardiner represented Colet as having acquired the old school "by gift grant and confirmation from three members of the Mercers' Company named Osyer, Digby, and Rice", as if it had belonged to them, and was bought by Colet from them. The mere fact that there were three of them puts any lawyer on inquiry, whether they were not trustees. Such, Hosier (to give him back his aspirote) and the others were. In the two deeds mentioned they were the grantees from the dean and chapter, because Colet could not very well as dean convey to himself as Colet. They reconveyed the premises by a deed of 10th June, 1512, to Colet. He made his will 10th June, 1514, granting the lands to the company for the school, which will (he being a citizen of London) was duly enrolled in the Hustings Court of the City. On the same day in 1511 that the chapter granted the old school, the chancellor of St. Paul's, William Lichfield, released to the same three Mercer trustees all his interest in the "grammar house or messuage, lately called Poulis Scole", the last two words being in English. A few days afterwards, 5th April, the chancellor in another document informed all whom it might concern that

though during his term of office he had made all endeavours possible to learn what right he had to the four shops, over which, namely in the long chamber built over it, the old grammar school of St. Paul's, London, was held, or in the school itself, he could never ascertain that the chancellor had any right, or received any rent from them, but that they seemed to belong to the dean and chapter ;

and therefore he had voluntarily made the release of the 28th March and con-

sented to the dean and chapter's grant of them "to the use of the New School in the churchyard of St. Paul's lately built". This was natural enough. Though the chancellor had the appointment of the master and control of the school, the school-house was provided by the chapter. As the chancellor did not get the profits of the shops under the school, he had also ceased to be liable for the repairs of it, as provided by the ancient statutes. Indeed, this is expressly stated by Colet to have been the case in the document next mentioned. It was the tendency in all cathedral and collegiate churches, owing to the increasing non-residence of the chancellors, for their duties in regard to the grammar school to be neglected and their rights forgotten. The then chancellor of St. Paul's did not even perform his own proper duty of lecturing on theology, for which the chancellorship had been specially endowed in 1309. He was non-resident, and when he was called to account by Bishop Fitz-James, *c.* 1507, said that the statute required "continuous residence and lectures" which was impossible, therefore he did not do it at all; to meet which plea the bishop solemnly altered the statute so as to provide that he should lecture three days a week, with two long vacations, one in the autumn, the other in the spring. The London chancellor was not singular in his neglect. The same thing happened at York. But the grammar schools could not be thus quietly dropped, and, in default of the chancellor, the appointment of the master and the care of the school devolved on the chapter, that is, the canons residentiary. It is clear that St. Paul's School had not ceased. For Colet applied to "the most Holy Father the Pope" for a bull confirming the exemption of his school from the jurisdiction of the chancellor of St. Paul's. His application described how "at his own proper cost he had caused to be built a certain school in the City of London in the place or churchyard of the cathedral church of London, a spot indeed which was the chief and most frequented, and as it were the very eye, of the City, where already there was a school, plainly of no importance, now rebuilt from the foundation in most beautiful stone-work and endowed". Now if the school was not going on at all, Colet would have said so, instead of going out of his way to sniff at it as a school of no importance. The sniff must be taken with all due allowance for the fact that the sniffer wanted to "reform" it. The better is the enemy of the good. Colet proves the existence of the cathedral grammar school, and that it was doing some good, by the very allegation that it was not doing all the good it might. After his endowment it was merged in the new school and ceased to exist.

As to the name of the school there is no adequate reason for thinking that it was ever intended to be anything but St. Paul's School or "the new School of St. Paul's". The notion that it was intended to be called the Jesus School, like Pursglove's foundations at Guisborough in Yorkshire and Tideswell

in Derbyshire, or the "Boy Jesus" School, or something of that kind has no solid foundation. The deeds invariably speak of the school as Paul's School, or the School in St. Paul's Churchyard (which was, by the way, the description of the old school in the ordinance of 1446), generally with the epithet of New, and there is little doubt that Colet's idea of its name was "the New School of Paul's". The insistence on its novelty in its title, like the title given by Henry VIII. to Warwick School, after its re-foundation on the dissolution of the collegiate church, of the "King's New School of Warwick", at once suggests that it was not new. Similarly the revised statutes of the school, made eight years after the deeds, in 1518, were signed with his own hand "Joannes Colet, fundator nove schole", while the first item in the schedule of property given in the statutes was "First, of the olde scole". The "old" school and the "new" school. Of what? Not of Jesus but of "Poule's". So in the copious minutes of the Mercers' Company relating to the founding of the school it is commonly called "the Scole of Poules", sometimes "the Scole at Poules" and "the Scole in Poules Churcheyarde", and on the day in 1512 when Colet first produced the statutes of the school, "the newe Scole at Poules". Paul's is always part of the title, Jesus never. The only colour for the suggestion that the school was ever called, or intended to be called, by the name of the Jesus School is that, in these statutes, Colet says that it was "founded in honour of Christ Jesu in His boyhood and of His Blessed Mother Mary". But no one has ever suggested that Winchester College was intended to be called Trinity College, or the Jesus College, or even Swithun College, because William of Wykeham in his foundation charter says he founded it "in the name of the highest and undivided Trinity, Father, Son, and Holy Ghost, to the praise, glory, and honour of the name of the Crucified, the most glorious Virgin His Mother, and the patrons of the cathedral church SS. Peter, Paul, Birinus, Eddi, Swithun, and Æthelwold".

It is true that on a tablet hung near Colet's tomb in St. Paul's were some verses which contained the line:

Quique scholam struxit celebrem cognomine Jesu,

"who built a famous school in (or with) the name of Jesus." It is said, but it does not appear on what authority, that these lines were by Lily. The fact that *scholam* is spelt with an h is strongly against this. Colet always spells it without. Anyhow, a poetic epitaph by an unknown hand, and of unknown date, near the tomb, is poor evidence compared with the prose inscription *on* the tomb, which said that Colet built and endowed, at his own sole charge, "scolam Paulinam", while in English, too, was inscribed on it "the only founder of Powle's School".

Indeed, if a new name had been given to this new-old school, it would rather have been that given to Winchester and Eton, St. Mary's School. For other lands, which it is said by some are now held by the Mercers instead of the school, were acquired by Colet and given to the Mercers in 1516, under separate letters patent, dated in 1512, for "the chantry of the Blessed Mary, patroness of boys", for a chaplain celebrating in the chapel of St. Mary, St. John the Baptist, and St. John the Evangelist, on the south side of the school, to pray, according to the usual formula, for the souls of the king, the founder, his friends and benefactors, but with the very unusual addition "for the increase of good literature, virtue and grace in the boys of the said school".

But it is clear that the school was called after neither the Mother nor the Son. It was called from the first, and was intended to be called St. Paul's School, or, in the less ceremonious phrase of the day, "the School of Poule's."

If Colet's school was not new in point of foundation, neither was it new in point of government or of education. A good deal has been made of his vesting the property and management in the Mercers, on the ground that "while there was no absolute certainty in human affairs, he found less corruption in a body of married laymen, like the Mercers, than in any other order or degree of mankind". There was force, no doubt, in this very strong expression in favour of laymen, coming from a priest and dignitary of the Church. But there was no novelty in the selection of married laymen or of a City company as trustees and governors of a school. If Holinshed is to be trusted, Sir Stephen Jenyns, Lord Mayor in 1508-9, had in 1508 built the grammar school at Wolverhampton, of which he made his company, the Merchant Taylors', governors; and it is more likely that his example inspired Colet, who only began his school in 1508, than *vice versa*. But even if that be not so, Jenyns was only imitating another Merchant Taylor Lord Mayor, in whose year Jenyns had been sheriff, Sir John Percyvale, who in 1502-3 had founded Macclesfield grammar school with local laymen as its governors and trustees, while Sir Bartholomew Read had founded Cromer grammar school in 1505 and made the Goldsmiths' Company its governors. The Goldsmiths had been made governors of Stockport grammar school, founded by another Lord Mayor, Sir Edmund Shaw, in 1487-8. And in truth there was an even earlier example in Colet's own company, John Abbott, citizen and mercer, having 19th June, 1443, given lands in London to the "Mistere" of the Mercers, making them trustees for a free school, a master to teach *libere et quiete* at Farnyngho, now Farthinghoe, in Northamptonshire. So that Colet in making a City company the governors of St. Paul's School was so far from making a new departure or creating a precedent that he was following one more than sixty years old. In selecting laymen as

trustees he was following a much older precedent, as gilds outside London had been the trustees of schools at least half a century earlier.

Nor was there any great novelty about the education to be given in the school. So far as Latin is concerned, though Colet talks a great deal about "the very Roman eloquence" and "true Latin speech, all barbarity, all corruption, all Latin adulterate being expelled", yet when he descends to details he only produces a list of authors, Prudentius, Proba, Sedulius, Juvenius, and Baptista Mantuanus, whose names are not known to classical scholars now, who are very "low" Latin indeed, and, with the exception of the last, are precisely the same as were enumerated by Alcuin at York in the eighth century, and by Vincent of Beauvais, a Dominican friar, in his treatise on education, written in the middle of the thirteenth century. Mantuanus was a friar of the fifteenth century who wrote eclogues in imitation of the great Mantuan Virgil, which were still used as a school-book in Shakespeare's day, and he makes Sir Hugh Evans quote it.

Colet's innovations were really two. First, a "catechizon", or catechism, in English, of Colet's own devising, which would a few years afterwards have been regarded as an odd mixture of heresy and orthodoxy, whether looked at from a Catholic or a Protestant point of view. The other innovation was the introduction of Greek by statute into the school as one of the possible requirements of the master, "lernyd in laten and also in greke yf suyche may be gotten". But the novelty was in the statute, not in Greek being taught.

The first English Grecist was William Grocyn, scholar of Winchester in 1463, Fellow of New College in 1467, where he sat under Cornelio Vitelli, an Italian lecturer, introduced by Warden Chandler. He himself after a sojourn abroad became the first English teacher of Greek in Oxford, in 1491. The younger generation of Wykehamists, Archbishop Warham, Nicholas Harpsfield, and other eminent Greek scholars and advancers of Greek, almost certainly learnt their Greek at Winchester. It is practically certain that under William Horman, a scholar of Winchester in 1468, Head Master of Eton 1485 to 1494, of Winchester 1494 to 1502, Greek was taught there. His *Vulgaria*, a sort of *Delectus*, published in 1519, but professedly reproducing school exercises given when he was head master, has many Greek phrases and references to Greek, even to the performance of a Greek play. Sir Thomas Pope, founder of Trinity College, Oxford, writing in 1556, says that, "when he was a young scolar at Eton, the Greek tongue was growing apace, the study of which is now much decayed." William Rightwys, or Righteous, the first surmaster of Colet's School, was an Etonian a little before Pope. As I have ventured to say in the *History of Winchester College*, "There can hardly be a doubt that the school of Grocyn, of Chandler, and of Warham, officially visited by the two latter, took the lead in the introduction of Greek into the curriculum

of schools," and was very soon followed by Eton. There was no need of a new school to introduce Greek to grammar schools any more than there was need of a new college to introduce it to the Universities. Greek had, as we have seen, already been studied at New College, when Fox, Visitor of it and of Winchester College, introduced it in his statutes at Corpus, his new college, in 1527. It could equally easily have been introduced into the old school of Paul's if Colet had so chosen. Was it provided for in the statutes of 1512, or only in those of 1518?

The introduction of Greek into the statutes of a school, and that school attached to a cathedral church, marks an era no doubt, seeing that Grecists at first were attacked as heretics; just as the introduction by name of the subject of Natural Science into the scheme for Bradford grammar school by the Endowed Schools Commissioners in 1870 marked an era, seeing that geology and natural selection had both in turn been branded as subversive of religion, and men of science as atheists. But though the Endowed Schools Commissioners marked a new era they did not start one. Before 1869 science had already been taught at Winchester, Eton, and Harrow, without the intervention of the State. So Colet, by his statutes, marked a new era by contemplating Greek as a school subject; he did not invent it as a school subject.

The fame of Colet's new endowment was due partly to his own fame and position, partly to that of the school which he re-endowed, but still more to the magnificence of the re-endowment. It is clear from the history we have traced that, before Colet, St. Paul's was a fee school. Colet made it a free school; and free not for 25 boys, as the Mercers' School was in 1541, nor for 70 boys only, like Winchester, but for no less than 153. The endowment was not so large as that of Winchester and Eton, and the Paulines were not lodged, boarded, and clothed, as well as taught, as were the young Wykehamists and Etonians. Nor was the school larger, as the Commoners at Winchester and Oppidans at Eton, partly boarders, partly day-boys, have also to be reckoned. But to the London citizen of those days the enlarged school, alike in buildings and constitution, was a foundation of the first rank.

None of the things, then, that Colet did in his foundation was novel in itself, neither the lay master, nor the lay governors, nor the freedom from fees, nor the magnitude of the endowment, nor the curriculum. But, taken altogether, founded with much flourishing of trumpets in the great city of London hard by the great cathedral church of St. Paul, and carried out in the cathedral grammar school itself, thus, after 400 years and more, significantly transferred from ecclesiastical to lay hands by the chief ecclesiastic of the cathedral church himself, the school made a great sensation, and may have seemed to the world at large a new departure.

The new school, however, was only the old school enlarged and reformed; or, as we should say, placed under a new scheme. So the present St. Paul's School, instead of being a mere mushroom of 400 years' growth, can establish an antiquity of at least 400 years more, and may reasonably claim a continuous existence as long as that of English London and its minster, from the time that Alfred expelled the Danes.

APPENDIX

GRANT OF MASTER DURAND'S STATION AND OF THE LIBRARIANSHIP TO THE SCHOOLMASTER, EX OFFICIO.

DE MAGISTRO SCOLARUM ET DE CANCELLARIO vij LITIERE, j.¹

[St. Paul's Mun. Lib. A.² f. xxviiij.]

c. 1111.

R. Dei gracia Londoniensis ecclesie minister, W. Decano totique fratrum conventui, Salutem et paternam benediccionem.

Noveritis filii mei karissimi vestra dileccio me Hugoni, Magistro Scholarum, ex Magisterii dignitate, suisque eiusdem dignitatis successoribus stabilisse firmiter Magistri Durandi stacionem in angulo turris, videlicet, ubi Decanus Willelmus meo illum collocavit imperio inter Robertum de Auco et Odonem.

Concedo eciam illi scholarumque privilegio nostre ecclesie omnium librorum custodiam.

Volo igitur, et tibi, Decane, precipio ut illos omnes in conspectu fratrum in quodam cyrographo ascriptos, cuius scilicet altera pars in thesauro custodiatur, alteram sibi retineat, ei commendes, et de hac custodia eum seisias, diligenter et sub anathemate investigans si aliqui librorum tam secularium quam divinorum extra missi per aliquem fuerint; quod si fuerint, sub obediencia precipio ut retromittantur.

Fac eciam illi habere claves armariorum juxta altare, que ad illud opus fieri imperavi.

Marginal note. NOTA. Magistrum Scholarum debere custodiam librorum almariis habere.

APPOINTMENT OF CANON HENRY TO THE MASTERSHIP OF ST. PAUL'S SCHOOL.

DE COLLACIONE SCOLARUM.³

[St. Paul's Mun. Original (plate XX, A) in Press A. Box 25A, no. 1368, and copy in Lib. A. f. xxviiij (cf. Knight's *Life of Colet*, ed. 1724, p. 117).]

c. 1127.

Ricardus Dei gracia Londoniensis episcopus W. Decano totique fratrum conventui, et W. de Occhendonapapifero suo cunctisque suis hominibus, salutem et in Christo benedictionem.

Notum vobis facio, karissimi, me concessisse Henrico canonico meo, nutrito magistri Hugonis, scholas Sancti Pauli ita honorifice sicut unquam melius et honorabilius illas ecclesia habuit, et terram de atrio quam⁴ predictus Hugo ad se hospitandum sibi inclusit; et pratum quod eidem Hugoni in Foleham concesseram, scilicet .iiij. acras, scilicet quicquid est in illo loco a grava usque ad Tamisiam singulis annis pro xij denariis de recognicione in festo Sancti Michaelis, et in elemosina decimam de Ilingis⁵ et decimam de Madaleia⁶.

¹ Marginal heading at the top of the page.

² Liber A, called *pilosus* from its hairy deerskin cover, is a cartulary copied from the original documents in 1241.

³ Marginal heading.

⁴ Wrongly *quod* in Knight's copy.

⁵ Lib. A has "Ylingis" (Ealing).

⁶ Lib. A has Madeleya.

Testibus Willelmo de Wintonia,¹ et Willelmo de Occhendonapapifero, et Hugone de Cancerisio. Valet.

Marginal note in Lib. A. NOTA.—Magistrum scholarum debere habere iiij acras prati apud Fulham et decimam de Yllinges et de Madeleya.

THE ACTING BISHOP OF LONDON ENFORCES THE MONOPOLY OF ST. PAUL'S SCHOOL, EXCEPT FOR THE SCHOOLS OF ST. MARY-LE-BOW AND ST. MARTIN-LE-GRAND (plate XX, v).

(Endorsed in a thirteenth-century hand: DE CANCELLARIO, and in a later sixteenth-century hand: "Excommunicacio contra omnes qui legunt in civitate preter licenciam magistri scholarum.")

[St. Paul's Mun. Press A. Box 60, no. 48, and Lib. A. f. xxix.]

1138-40.

H[enricus] Dei gracia Wintoniensis ecclesie minister capitulo Sancti Pauli et Willelmo archidiacono et ministris suis Salutem.

Precipio vobis per obedientiam, ut, trinam vocationem², sentenciam anatematicis³ in eos proferatis qui sine licencia Henrici Magistri scholarum in tota civitate Lunden legere presumpserint⁴ preter eos qui scholas Sancte Marie de Archa et Sancti Martini regunt. Teste Magistro Ilario apud Wintoniam.

Marginal note in Lib. A. Nota quod scole non sunt tenende London nisi apud Beatum Paulum exceptis scholis Beate Marie de Arcubus et Sancti Martini Magni.

[Chronicle of Ralph de Diceto (Rolls Series), i. 252.]

1138. Dominus Papa curam ecclesie Lundeniensis Henrico commisit Wintoniensi Episcopo cum gracia Regis.

1140. Imperatrix a Lundeniensibus recipitur in Dominam, per quam Robertus de sigillo factus est Lundeniensis episcopus.

LONDON SCHOOLS IN THOMAS À BECKET'S BOYHOOD.

[*Materials for the History of Thomas Becket, Archbishop of Canterbury* (Rolls Series, 67), vol. iii. William Fitz-Stephen's *Vita Sancti Thomae*.⁵]

p. 3 (7). Sunt etiam circa Londoniam ab aquilone suburbani fontes praeicipui, aqua dulci, salubri, perspicua, et per claros rivo trepidante lapillos; inter quos Fons Sacer, Fons Clericorum, Fons sancti Clementis, nominationes habentur, et adeuntur celebriore accessu et majore frequentia scholarium, et urbanae juventutis in serotinis aestivis ad auram exeuntis. Urbs sane bona, si bonum habeat dominum.

p. 4 (9). In Londonia tres principales ecclesiae scholas celebres habent de privilegio et antiqua dignitate.⁶ Plerumque tamen favore personali alicujus notorum secundum philosophiam plures ibi scholae admittuntur. Diebus festis ad ecclesias festivas magistri conventus celebrant. Disputant scholares, quidam demonstrative, dialectice alii; hi rotant enthymemata, hi perfectis melius utuntur syllogismis. Quidam ad ostentationem exercentur disputatione,

¹ Lib. A has *et aliis* for the other names, and omits *Valet*. The seal, with figure of the bishop with crozier in the left hand, is attached by parchment thongs.

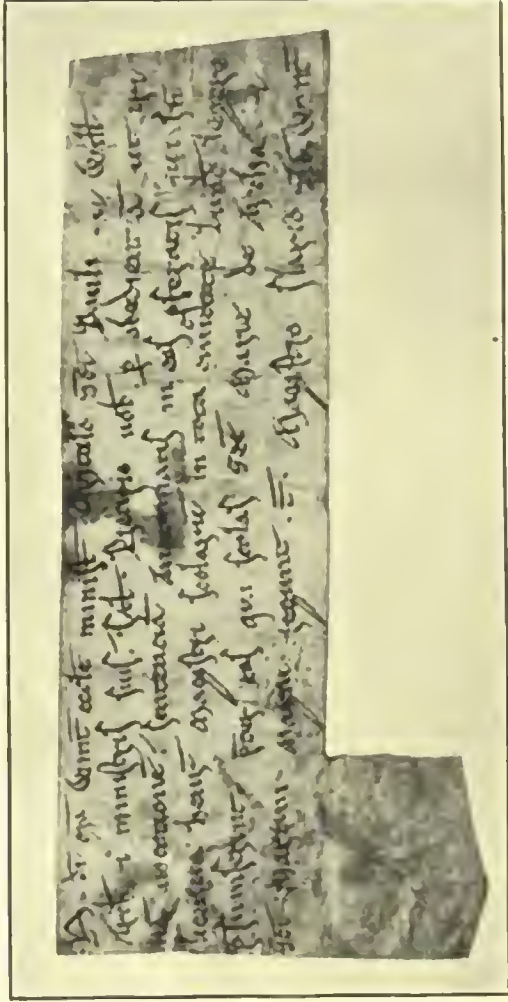
² post trinam vocationem (Lib. A).

³ anathematis (Lib. A).

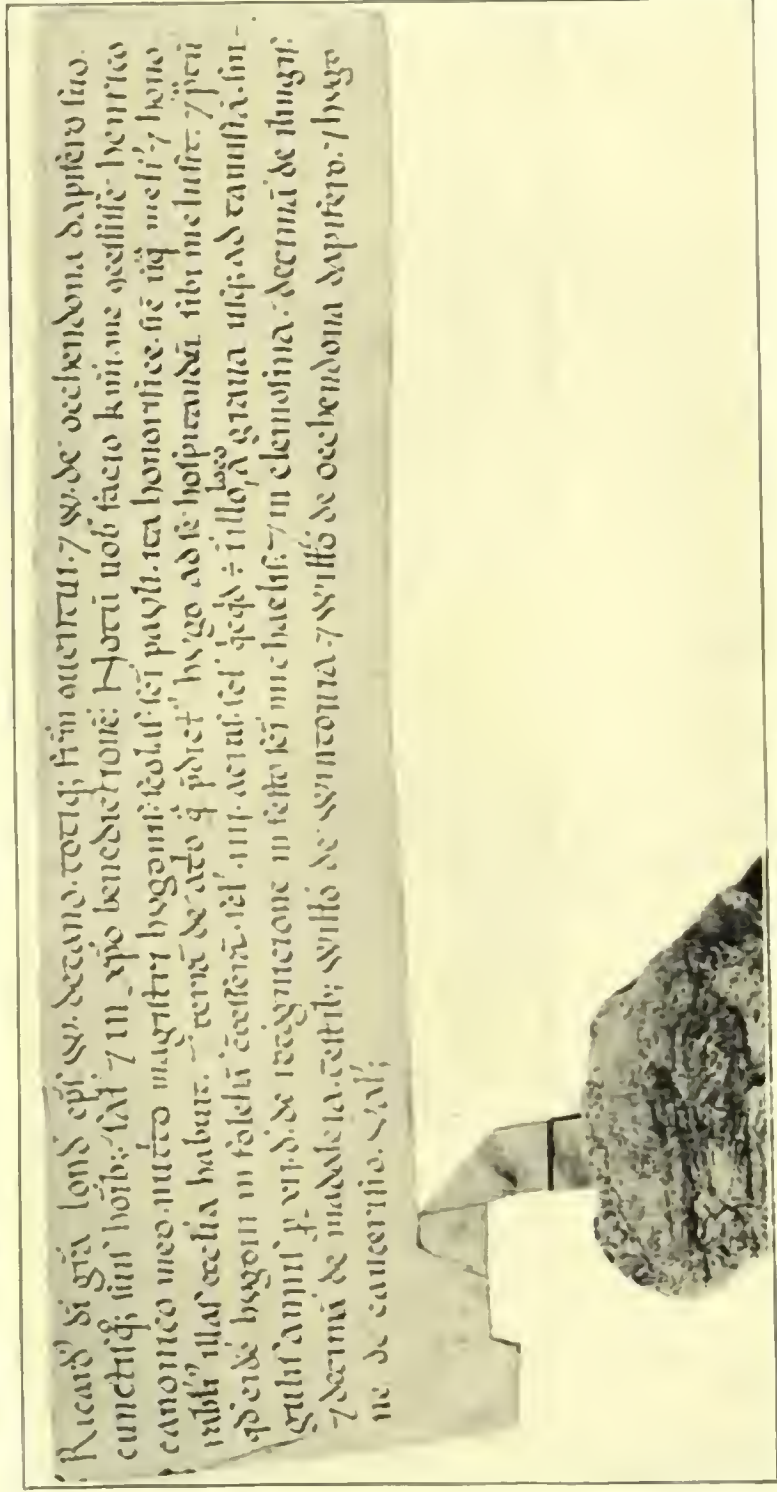
⁴ presumpserint (Lib. A).

⁵ The spelling is given as in that edition, not as in the original.

⁶ Videlicet, sedes episcopalis ecclesia S. Pauli, ecclesia S. Trinitatis, et ecclesia S. Martini, printed in *Munimenta Gildhall*. Lib. Customarum, ii. 5. The second is a mistake; it was St. Mary-le-Bow.



13



A

- A. GRANT BY RICHARD DE BELMEIS, BISHOP OF LONDON, c. 1111, TO CANON HENRY, OF ST. PAUL'S SCHOOL, ETC.
B. DECREE OF HENRY, BISHOP OF WINCHESTER, c. 1140, TO ENFORCE THE LEGAL MONOPOLY OF ST. PAUL'S SCHOOL.

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quae est inter collectantes¹; alii ad veritatem, ea quae est perfectionis gratia. Sophistae simulatores agmine et inundatione verborum beati iudicantur; alii paralogizant. Oratores aliqui quandoque orationibus rhetoricis aliquid dicunt apposite ad persuadendum, curantes artis praecepta servare, et ex contingentibus nihil omittere. Pueri diversarum scholarum versibus inter se conrixantur; aut de principiis artis grammaticae, vel regulis praeteritorum vel supinorum, contendunt. Sunt alii qui in epigrammatibus, rhythmis et metris, utuntur vetere illa triviali dicacitate; licentia Fescennina socios suppressis nominibus liberius lacerant; loedorias jaculantur et scommata; salibus Socraticis sociorum, vel forte majorum, vitia tangunt; vel mordacius dente rodunt Theonino audacibus dithyrambis. Auditores,

multum ridere parati,
Ingeminant tremulos naso crispante cachinnos.

p. 9 (13). Praeterea quotannis, die quae dicitur Carnilevaria, ut a ludis puerorum Londoniae incipiamus (omnes enim pueri fuimus), scholarum singuli pueri suos apportant magistro suo gallos gallinaceos pugnaces, et totum illud antemeridianum datur ludo puerorum vacantium spectare in scholis suorum pugnas gallorum. Post prandium vadit in suburbanam planitiem omnis juvenus urbis ad lusum pilae celebrem. Singulorum studiorum scholares suam habent pilam; singulorum officiorum urbis exercitores suam fere singuli. Majores natu, patres, et divites urbis, in equis spectatum veniunt certamina juniorum, et modo suo juvenantur cum juvenibus; et excitari videtur in eis motus caloris naturalis contemplatione tanti motus et participatione gaudiorum adolescentiae liberioris.

p. 14. [Thomas à Becket.] Puerum cum pater in religiosa domo canonicorum Meritoniae priori Roberto aliquandiu nutriendum commendaverat. . . Annis igitur infantiae, pueritiae et pubertatis simpliciter domi paternae et in scholis urbis decursis, Thomas adolescens factus studuit Parisius.

THE SCHOOL BOYS ARE GIVEN 3D. FOR CHERRIES.

[St. Paul's Mun. Liber L. f. 20, printed in Hist. MSS. Com. Rep. ix. App. 62.]

c. 1142.²

Notum sit presentibus et futuris quod canonici Beati Pauli Londoniensis emerunt acram terre iuxta Sanctam Margaretam de qua tenentes v solidos prius habere solebant, pro xxvj marcis, quas dederunt Leuestan filio Orgari et Ailwino et Roberto filiis Leuestani et ceteris de eorum cognatione ut ipsa acra tota Beati Pauli et canonicorum esset soluta et quieta imperpetuum.

Sed quoniam de eadem acra orta est calumpnia ab eisdem et eciam a quadam sorore supradicti Leuestani, dixerunt enim se nihil habuisse amplius quam xv marcas de xxvj supradictis, redemerunt eam ab eisdem vij libris et ix solidis et xj denariis, ita videlicet quod super eandem acram recepit inde Leuestanus viij marcas, et Robertus filius Leuestani j marcem, et Ailwinus frater eius j marcem et dimidiam, et Gislebertus Prutfot vicecomes ij solidos et Azo aldermannus ij solidos, et soror Leuestani ij solidos, que cum aliis parentibus clamavit Sancto Paulo et canonicis totam acram solutam et quietam, Hugo filius Ulgari iij solidos, Vitalis clericus vicecomitis iiij denarios, bedellus illius Warde iiij denarios, pueri scolarum qui testes huius empcionis interfuerunt iij denarios ad cerasa habuerunt. . .

¹ This should be *collectantes*, as printed in Pegg's edition, *i.e.* as they do at collections.

² The date is fixed by the first witnesses being "Radulphus Decanus, Ricardus de Belmeis". Ralph of Langford occurs as dean in 1142, and Richard was Archdeacon of Middlesex in or about 1138. Le Neve's *Fasti*, ii. 307, 325. Magister Henricus, *i.e.* Schoolmaster Henry, also appears as a witness, next after Robertus de Auco.

FURTHER ENDOWMENT OF SCHOOLMASTER.

[St. Paul's Mun. Lib. A. f. xxix.]

NOTA. De decimis magistro scholarum Sancti Pauli concessis, nunc cancellario.
c. 1198.

Ricardus¹ Dei Gracia Londoniensis (*sic*) Episcopus Omnibus sancte matris ecclesie filiis ad quos presentes littere pervenerint Salutem in Domino.

Ea que ad honorem ecclesie Domini et ad ejus dignitatis augmentum recte disponuntur, justum est perpetua firmitate gaudere. Inde est quod nos, cum divina dispositione ad ecclesie Londoniensis regimen vocati essemus, considerantes quod magister scholarum ecclesie Beati Pauli solius fungeretur magisterii nomine, et ex ipso magisterio vel nullum vel modicum sortiretur emolumentum, in mente et proposito habuimus ut cum nobis facultas suppeditaret aliquos magisterio conferremus redditus; ex quibus ipse magister cum dignitatis nomine aliquod perciperet commodum.

Procedente itaque tempore, communicato cum viris prudentibus consilio, assensu Decani et capituli ecclesie Beati Pauli, hec que subscripta sunt ipsi magisterio assignavimus; Decimas, scilicet totius dominici nostri de Fuleham tam de frugibus quam de aliis fructibus; et de feno, et alias minutas decimas omnes, decimas quoque assartorum et novalium que ante tempora nostra ad cultum redacta sunt; scilicet de x et una acris in Bernes, et de viginti acris in Stroda, et de xx acris in campo Dispensatorum, et de xx acris in Wargemere, et de octo acris de sarto Sagun, et de xl quinque acris et dimidia inter assartum Ricardi et vetus fossatum, et de sexaginta octo acris essartorum juxta Wormeholt et Herleston, et decimas de viginti duabus acris apud Sixtele et de duabus acris in Whitemere et de duabus acris que jacent in Hoco et de novem acris essartorum in Wormeholt et de quatuor acris essartorum juxta Wormeholt Hec autem omnia ad cultum ante tempora nostra redacta sunt.

Assignavimus etiam eidem magisterio omnes decimas nostras tam de frugibus quam de aliis fructibus et minutas de dominico nostro de Horseta, et de tota terra illa que fuit Humfridi de Marini. Assignavimus etiam sepedicto magisterio unam acram terre in Horsat ad repositionem decimarum eidem magisterio assignatarum, libere et pacifice de nobis et successoribus nostris tenendam.

Ut autem hec nostra concessio perpetuam optineat firmitatem ne tractu temporis in dubium posset devocari vel in irritum, eam presentis scripti testimonio et sigilli nostri appositione roborare curavimus.

Hiis Testibus Radulpho de Diceto, ecclesie Beati Pauli Londoniensis Decano, Magistro Alardo, Archidiacono² Londiniensi, et aliis nominatis in carta.

FIRST MENTION OF ALMONRY BOYS (CHORISTERS) AND BOY-BISHOP.

[St. Paul's Mun. W. D. 9, Registrum Statutorum, part vii, chapter 6. Printed by W. Sparrow Simpson, 1873.]

CONSTITUTIONES ET STATUTA ET DECLARATIONES CONSUETUDINUM ANTIQUARUM ET APPROBATARUM EDITE TEMPORE MAGISTRI RADULPHI DE DISCETO, DECANI SANCTI PAULI.

1181-1199.

De Canonicis qui in Ecclesia Sancti Pauli London residere proponunt sic est ordinatum, quod veniat per quindenam ante festum Sancti Michaelis, vel Natalis Domini, vel Pasche, vel Nativitatis Sancti Johannis Baptiste, ad Capitulum, et in presencia Decani et Fratrum, pro-

¹ Fitz Neal, 1189-1209.

² After 1197 to 1215.

testetur se velle residere, et residenciam iuchoare in vigilia Sancti Michaelis proxime sequentis, vel aliorum festorum predictorum, et eam secundum consuetudinem ecclesie predictae continuare; duos clericos tunc secum habens, qui aliud beneficium vel officium in Ecclesia non habeant, et sint in sacris, vel alter in sacris, alter ad sacros aptus, et cum ipso chorum frequentent horis diurnis omnibus et nocturnis. Et cotidie pascat ad tres refecciones duos parvos Canonicos, et duos Capellanos, et quattuor Vicarios, et duos pueros elemosinarios,¹ et servientes ecclesie virgas in ea portantes, et Pulsatores campanarum qui qualibet nocte ad domum suam venient ut eum evigilent, et de matutinis muniant vel constare faciant ad portam diu pulsando ne horam illam perdat; pro qua pulsacione singulis noctibus liberatam panis et servisie et coquine habeant. Et secum ad Ecclesiam media nocte panem et cervisiam pro junioribus chorum frequentantibus deferi faciat. Et quolibet quarterio semel vel bis post matutinas junioribus gentaculum unum in domo sua faciat.

DE CENA IN OCTAVIS INNOCENCIUM.

Et secundam cenam in octavis Innocencium tenebit, episcopum cum pueris et eorum comitiva pascendo, et in recessu dona dando, et, si diu expectet adventum illorum nocte illa, ad matutinas non teneatur venire. Et si contingat de facto, quod alibi morari voluerit quam in domibus juxta ecclesiam, sicut predictum est, caret omni beneficio et emolumento Residenciariis et stagiariis debito, ratione Residencie, exceptis pitanciis parvis, que debentur presentibus in festis ecclesie et obitibus.

THE EARLIEST USE OF THE TITLE OF CHANCELLOR AT ST. PAUL'S.

[St. Paul's Mun. Press A. Box 42, No. 1521, Hist. MSS. Com. App. 1521, p. 42.]

1205.

Assignment by William, bishop of London (de S. Marie ecclesia, 1197-1221), of the new places in Chelmsford where he bought the new market.

Witnessed by Mr. John de Cancia, chancellor, and five others.

GRANT BY CHANCELLOR HENRY OF CORNHILL OF HIS HOUSE TO
THE CHANCELLORSHIP FOR HIS OBIT.

CARTA DE DOMIBUS CANCELLARII ET MARCA SOLVENDA AD OBITUM H. CORNULL.

[St. Paul's Mun. Lib. A. f. xxix. 4.]

Between 1231 and 1241.

Omnibus Christi fidelibus Henricus de Cornhull, cancellarius Londiniensis, Salutem in Domino sempiternam.

Debito conditionis humane per exitum mortis corporalis obnoxius, oraciones ecclesie et fidelium apud omnipotentis Dei clemenciam mihi spero profituras. Ea propter aream meam et domos quas in Atrio ecclesie Beati Pauli Londoniensis ad australem ecclesie partem possedeo de consensu karissimi in Christo Patris Rogeri Londoniensis episcopi et capituli ipsius ecclesie relinquo. Ita quod is qui pro tempore in officio Cancellarii et dignitate mihi successerit in ecclesia Beati Pauli domos predictas cum area possideat, et in anniversario die obitus mei singulis annis reddat unam marcam ecclesie prefate, de qua dimidiam marcam fratribus et canonicis qui presentes erunt in commemoratione defunctorum, que pro me fiet, et reliquis clericis chori dimidiam marcam eodem modo presentibus assigno.

Retineo tamen mihi dum vixero et prebendam habuero in ecclesia memorata possessionem

¹ The almonry, or hospital for the poor, was established during Ralph de Diceto's deanery by a grant of Master Henry of Northampton, the chapter annexing to it the doles of bread and pennies which, according to the ancient institution of the church, they gave in alms to the poor. The rectory of St. Pancras was also given as endowment.

et commoditatem hospicii mei, licet ad aliud officium fuero assumptus fortasse, nisi per Dominum Episcopum Londoniensem de alio hospicio eque bono et competenti in eodem atrio mihi provideatur.

In cuius rei testimonium cartam presentem sigillo nostro communivi. Hiis Testibus Galfrido, Decano Sancti Pauli, Magistris W. de Sancte Marie ecclesia et aliis.

THE CHANCELLOR'S DUTIES.

[St. Paul's Mun. W. D. 19, ff. 2a. 4.]

c. 1250.¹ CONSTITUCIO HENRICI NONDUM APPROBATA DE STATU PERSONATUUM ET CANONICORUM.

Item, in tabula scribuntur nominibus dignitatis Dominus presul et Decanus tantum ubique. Cancellarius autem solus, nomine dignitatis in dupplicibus festis tantum in sexta leccione. Hec sunt officia Personarum. . . .

Cancellarius presens de leccionibus, missis, epistolis, ewangelis, acolytis, ebdomadariis tabulam instruit, lecciones audit. Lectionem eciam Domini Episcopi solempnibus diebus audit: librum ei defert in quo legitur in principio matutinarum. In ultima eciam leccione serico indutus legenti Episcopo ministrat.

Clericos eciam gradus inferioris de ecclesia ordinandos introducit, et examinatos in scolis Domino presuli representat ordinandos. Et de talium excessibus justiciam exhibet cuilibet conquerenti.

Cui eciam subsunt scolares in civitate morantes, exceptis scholaribus unius scole de Arcubus, et unius scole in Basilica Sancti Martini Magni, qui se privilegiatos in hiis et aliis esse contendunt. Idem eciam cancellarius armarium cum libris ecclesie scolasticis custodit.

STATUTES COLLECTED BY RALPH OF BALDOCK, DEAN, 1294-1304.

CONFIRMED BY HIM AFTER HE WAS CONSECRATED BISHOP,

30TH JANUARY, 1305-6.

THE CHANTER'S OR PRECENTOR'S DUTIES.

[St. Paul's Mun. W. D. 9, f. 101. Printed in W. Sparrow Simpson's *Registrum Statutorum*, 22 seq.]

Pt. I. chap. 54. DE OFFICIO ET POTESTATE CANTORIS.

c. 1300.

Cantoris officium est chorum in cantus elevacione, depressione, et psalmodia regere; Cantores per magistrum Scole cantus in tabula ordinare, negligentes ad cantandum excitare, tumultuantes et inordinate discurrentes per chorum modeste arguere et sedare. In festis maioribus si in choro fuerit instructus ut Cantor antiphonas super *Benedictus* et *Magnificat* et cantus processionales et sequencias inchoare, pueros introducendos in chorum et ad cantum intitulos examinare.

THE SONG SCHOOLMASTER.

Pt. I. chap. 55. DE MAGISTRO SCOLE CANTUS.

Magistrum Scole Cantus in ecclesia Sancti Gregorii, salva Decano et Capitulo ipsius collacione, preficere, et capas chori per substitutum Thesaurarii in chorum delatas per suum succentorem distribuere secundum statum et condicionem personarum. Omnis tamen potestas corrigendi delinquentes in choro ad Decanum et Capitulum pertineat sicut ante ordinacionem cantoris pertinere consuevit. Debet eciam in omni dupplici festo Rectores chori de cantibus incipiendis instruere, et canonico ad altare celebranti *Gloria in excelsis* intonare.

¹ Henry of Cornhill became dean in 1241. The customs of H. of Cornhill are said to be "nondum approbatis", probably because time had not yet run, viz. 60 years.

THE CHANCELLOR'S DUTIES.

Pt. I. chap. 56. DE OFFICIO ET POTESTATE CANCELLARII.

Cancellarii officium est de leccionibus, missis, epistolis, et evangeliis ebdomariis tabulam instruere, lecciones audire, in ultima lectione serico indutus legenti Episcopo ministrare, sextam leccionem per se legere. Clericos eciam gradus inferioris de ecclesia ordinandos introducere, et examinatos in scolis episcopo presentare ordinandos; et de talium excessibus justiciam cuilibet querelanti exhibere; cui eciam subsunt scolares in civitate morantes, exceptis scolaribus scolarum de Arcibus et Sancti Martini magni, qui se privilegiatos in hiis et aliis esse contendunt.

THE GRAMMAR SCHOOLMASTER.

Pt. I. chap. 57. DE MAGISTRO IN ARTIBUS SCOLE GRAMATICE PREFICIENDO.

Idem eciam Cancellarius magistrum de artibus scolis gramaticis preficit, et scholas ipsas congrue reparari facere tenetur; litteras et cartas capituli componit, et que legende sunt in capitulo legit. Sigillum principaliter custodit; pro qualibet carta sigillanda vel innovanda ad utilitatem eorum quibus fiunt, unam libram piperis recipit, et capitulum tres solidos. Decanum, si ad ordines promovendus fuerit, vocat ad titulum *Sancti Pauli*. Libros scolasticos in armariolo principaliter custodit: quos singulis annis coram Decano et aliis ad hoc vocatis exhibere debet, ut nullus deterioretur vel peioretur; et registrum librorum illorum apud Decanum et Cancellarium et fratrem tercium ad hoc deputatum distincte scriptum conservetur.

THE ALMONER'S DUTIES.

Pt. V. chap. 8. DE ELEMOSINARIO.

c. 1310.

Elemosinarius Ecclesie Sancti Pauli sub obediencie et prestiti juramenti debito diligenter observet, ut diebus statutis distribuat elemosinas secundum modum per illos ordinatum qui ad hoc ipsum redditus elemosinarie contulerint. Pauperes eciam mendicantes, quos in cimiterio vel deprope mori contigerit, faciat gratis secundum morem solitum sine more dispendio in majori Cimiterio tumulari. Habeat insuper continuo secum octo pueros ad Ecclesie ministerium ydoneos, quos per seipsum vel alium magistrum inspectantibus ad ministerium Ecclesie et litteratura ac bonis moribus diligenter faciat informari. Pro dictis vero pueris recipiendis vel alendis nichil recipiat ex pacto ab aliquibus exteris preter stipendia constituta, nec per favorem recipiat, nec retineat aliquos pueros nisi ydoneos ad Ecclesie ministerium supradicte. In singulis eciam quarteriis chori stent duo pueri, nec alternent loca, nisi ministerii sui necessitate postulante. Item, dicti pueri chorum ingressi non egrediantur nisi ex causa rationabili ad ministerium suum agendum. Item, dicti pueri cereos absque ceroferariis non ferant, et cereos illuminent et extinguant certis temporibus, sicut congruit secundum mysticam rationem; et si cereos bajulando ipsos desidiose fregerint, eo ipso perdant residuum cereorum in fine septimane. Quociens vero dicti pueri ad scholas vel spaciatum ire debent, pariter eant et redeant sub ducatu alicujus maturi hominis ad hoc per Elemosinarium assignati, ne puerili levitate sparsim evagentur inhoneste. Item, dictus Elemosinarius omnes redditus ad Elemosinarium spectantes plene et distincte scribi faciat; et infra mensem Decano et Capitulo tradat, ut in registro Ecclesie ad perpetuam memoriam describantur.

THE GRAMMAR SCHOOLMASTER'S DUTIES.

Pt. V. chap. 10. DE MAGISTRO SCOLARUM GRAMATICE.

Quod magister scolarum tabulam lecture scribat vel scribi faciat vice Cancellarii, quociens opus fuerit, secundum approbatum morem Ecclesie congruentem. Item, quod more solito

chorum sequatur in habitu congruente et primam legat leccionem in dupplicibus festis, et tunc ascultet et corrigat saltem minores ad tunc lecturos. Item, quod more solito disputationes dialectice¹ et philosophie teneat apud Sanctum Bartholomeum in festo ejusdem, et disputata determinet apud Sanctam Trinitatem.

THE BOY-BISHOP'S CELEBRATION.

Pt. VI. chap. 9. DE OFFICIO PUERORUM IN FESTO SANCTORUM INNOCENCIUM.

1263.

Memorandum, quod Anno Domini Millesimo cc.lxij, tempore G. de fferring, Decani, ordinatum fuit de officio Puerorum die Sanctorum Innocencium, prout sequitur. Provida fuit ab antiquis patribus predecessoribus nostris deliberacione statutum, ut in sollennitate Sanctorum Innocencium, qui pro Innocente Christo sanguinem suum fuderunt, innocens puer Presulatus officio fungeretur ut sic puer pueris preesset, et innocens innocentibus imperaret, illius tipum tenens in Ecclesia, quem sequuntur Innocentes, quocumque ierit. Cum igitur quod ad laudem lactencium fuit adinventum, conversum sit in dedecus, et in derisum decoris Domus Dei, propter insolenciam effrenate multitudinis subsequenter eundem, et affluentis improborum turbe pacem Presulis exturbantis, statuendum duximus ut predicti pueri, tam in eligendo suo Pontifice et personis dignitatum Decani, Archidiaconorum, et aliorum, necnon et stacionariorum, antiquum suum ritum observent, tabulam suam faciant, et legant in Capitulo. Hoc tamen adhibito moderamine, ut nullum decetero de canonicis majoribus vel minoribus ad candelabra, vel turribulum, vel ad aliqua obsequia ejusdem ecclesie, vel ipsius Pontificis deputent in futurum, set suos eligant ministeriales de illis qui sunt in secunda forma vel in tercia. Processionem suam habeant honestam, tam in incessu, quam habitu et cantu, competenti; ita vero se gerant in omnibus in ecclesia, quod clerici et populus illos habeant recommendatos. Cum autem declinaverit Episcopus puer ad cenandum post vespervas Beati Johannis, ad cujus voluerit canonici Residentis domum, hac solum sit contentus familia. Duos secum habeat quos sibi eligit capellanos, duos quos sibi eligit ceroferarios, quinque pueros alios vice clericorum suorum, duos etiam de servientibus ecclesie, qui cum virgis Presulem precedent. Caveant autem sibi ne Capellanos vel Ceroferarios vel clericos suos alios, ut predictum est, de illis eligant qui gerunt personas stacionariorum, sive sint dignitates, sive alie, nisi persone quorum vicem gerunt sint absentes. Illustis autem persona qui vicem tenet Decani, adjunctis sibi quattuor sociis de aliis personis stacionariorum, si fuerint absentes, ut dictum est, ad domum declinet Decani. Ceteri vero qui personas optinent dignitatum, ad domos dominorum suorum declinent, quilibet contentus tribus sociis. Alii vero qui reliquorum stacionariorum personas gerunt, similiter ad domos dominorum suorum descendant, quilibet contentus duobus sociis. Et is ordo et numerus observetur, tam in prima cena quam in mensa diei, quam cena posteriori, nec cum eo cenabit ultima die, vel prandeat cum quo cenavit primo die. Ex premissis manifeste colligitur quod si descenderit Episcopus ad domum Decani, erit ibi cum xv clericis. Si ad domum alicujus optinentis dignitatem cum xiiij clericis. Si ad alterius privati Stacionarii cum xij. Die vero sollennitatis post prandium ad mandatum persone Decani convenient omnes in atrio Ecclesie, ibidem equos ascendant ituri ad populum benedicendum. Tenetur autem Decanus Presuli presentare equum, et quilibet Stacionarius sue persone in equo providere. In transgressores autem hujus constitutionis, &c.

Communi fratrum consensu provisum est et ordinatum quod de cetero non celebrentur O. O. O. contra Natale, nec aliquis Resident vel Stacionarius teneatur aliquos de Ecclesia cum absens fuerit pascere, nisi in dupplicibus festis; nec etiam Ebdomodarius quilibet celebrans missam in dominica ebdomade sue aliquos pascere teneatur, nisi octo personas solummodo, videlicet, ministros altaris, magistrum, Camerarium, et cantores. Acta sunt hec provisa et statuta in

¹ dyalecticie.

compoto cinerum, scilicet die Sabbati in festo Sancti Cedde, presentibus Decano, Archidiaconis London, Essexie, et Middlesexie, Thesaurario, Cancellario, Simone de Stanbrigg, Johanne de Sancta Maria, Reginaldo de Brandone, et Johanne de Luk.

THE ALMONRY BOYS.

Pl. VII. chap. 6. DE PUERIS ELEMOSINARIIS.

Item, quia pueri de Elemosinaria de Elemosina vivere debent, ordinatum est quod in domibus Canonicorum ad terram sedeant, non cum Vicariis ad mensam, ne superbiant et ebriosi fiant, et forte cicius luxuriosi et inepti ad servicium Ecclesie, et aliquando eo cicius hospite non salutato recedunt, et aliquando cum ad Elemosinariam de festo redeunt, dietam ibidem contempnunt et eorum Magistrum diffamant.

THE CHANCELLOR'S THEOLOGICAL SCHOOL.¹

[St. Paul's Mun. Box 24, no. 621.]

1315.

Whereas a house belonging to the Chapter of St. Paul's, at the north-east corner of Sarmanneris Lane, which Sir John Daveys, late Minor Canon, inhabited during his life, has been assigned to Sir Nicholas Housebonde, likewise Minor Canon, for his residence; the said Nicholas has made complaint that it is inconvenient for the purpose, on account of the grievous perils which are to be feared by reason of its distance from the cathedral church, and the crossing of dangerous lanes by night and the attacks of robbers and other ill-disposed persons which he had already suffered, and also on account of the ruinous condition of the building, and the crowd of loose women who live around it. The Chapter therefore assigns to him a piece of ground at the end of the schools, on which to make a house and a "viridarium", the said ground extending from the wall of St. Paul's to the wall on the south side of the church-yard bounding the garden of the Chapter, with various conditions as to the building. A. D. 1315. Witnesses: John de Sandale, Chancellor of England; Richard de Neweport, Archdeacon of Middlesex; William de Meleford, Archdeacon of Colchester; Richard de Grene, the Treasurer, Robert de Clothale, the Chancellor, Thomas de Northflete, Henry de Sarracen . . . Walter de Thorp, William de Chateleshunte, and seven others named.

[St. Paul's Mun. Box 24, no. 865.²]

1332.

Assignment by John of Everdon, Dean, of all that place which is on the south side of the said church, from the door which is called "ostium capituli" as far as the schools in which the Chancellor lectures (*legit*), and so crosswise as far as the stone wall opposite, that is to say all that place which is called the garden of the Dean and Chapter, for the building thereon of a chapter-house and cloister.³ Dated 18th Kalends of July, 1332.

BEQUESTS SHOWING THAT ALMONRY BOYS WERE CHORISTERS.

[Calendar of Hustings Wills, ed. Dr. Sharpe, i. 281, ii. 21.]

1315. Friday before 24 Aug.

Neuport (Sir Richard de) late Bp. of London. To Sir W^m de Tholeshunte & Sir Jⁿ de Haddelee his chaplains in S^t Pauls and their successors in his chauntries a messuage opposite S^t Paul's brewhouse.

¹ Abstract in Hist. MSS. Commn. Rep. IX. Appx. 52.

² Abstract in Hist. MSS. Commn. Rep. IX. Appx. 53.

³ Cloister and chapter-house built 1332.

To the Almoner of S^t Paul's a messuage in the parish of S^t Gregory, he rendering annually 20^s to chapel of B. V. M. in S^t Paul's; the residue to maintenance for 2 years of one or two boys when they shall change their voice, provided they have no other exhibition. Roll 47 (60).

London, Friday before S^t Bartholomew, Apostle.

1348. 14 Nov. Pulteney (Jⁿ de) K^t

(*cf.* Hist. MSS. Commn. Rep. IX. Appx. p. 47 a.)

Master of collegiate church of Corpus Christi near S^t Laurence, Candelwyk-street, to pay to Almoner of S. Paul's church 20^s for summer vestments for choristers, so that they sing every day after compline an antiphon with music and orisons for the dead in the chapel to be erected by the Testator's executors for the good of his soul. Friday after S. Martin, 1348.

1358. 16 July.

Ravonstone W^m de. Rep. Chaplain & Almoner. (*cf.* Hist. MSS. Commn. Rep. IX. Appx. 47 b.)

A tenement called le Stonelious in Paternoster Row given for support of one extra chorister or two.

STATUTES FOR THE ALMONER.

[Brit. Mus. Harl. MS. 1080. Registrum Elimosinarii.]

Before 1263.

STATUTA ELIMOSINARII.

Elimosinarius ecclesie Sancti Pauli sub obediencie et prestiti juramenti debito diligenter observat ut diebus statutis distribuatur elemosinas secundum modum per illos ordinatum qui ad hoc ipsum redditus elemosinarie contulerunt.

Pauperes et mendicantes quos in cimiterio vel de prope mori contigerit faciat gratis, juxta morem solitum, sine dispendio in majori cimiterio tumulari.

Habeat insuper cotidie¹ secum octo pueros ad ecclesie ministerium ydoneos quos per seipsum vel alium magistrum in spectantibus ad ministerium ecclesie et litteratura ac bonis moribus diligenter faciat informari. Pro dictis vero pueris recipiendis vel alendis nichil recipiat ex pacto ab aliquibus exteris preter stipendia constituta, nec per favorem recipiat vel retineat pueros aliquos nisi ydoneos ad ecclesie ministerium supradictum.

In singulis quarteriis chori stent duo pueri nec alternent loca nisi ministerii sui necessitate postulante.

Item dicti pueri laute ingressi non egrediantur nisi ex causa rationabili ad ministerium suum peragendum.

Item dicti pueri cereos absque cere ferariis non ferant, et cereos illuminent et extinguant certis temporibus sicut congruit secundum mysticam rationem et si cereos bajulando ipsos desidiouse fregerint, eo ipso perdant residuum cereorum in fine septimane.

Quociens vero dicti pueri ad scholas vel spaciandum ire debent, pariter eant et redeant sub ducatu alicujus maturi hominis ad hoc per Elimosinarium assignati, ne puerili levitate sparsim evagentur inhoneste.

BEQUESTS BY ALMONER FOR ALMONRY BOYS, MONEY, BOOKS, AND ENDOWMENT FOR SHOES.

1328-9. 20 Jan.

[*Ibid.* f. 32.]

Testamentum Domini Willelmi de Tolleshuntes Elemosinarii ecclesie Sancti Pauli, quo legavit duas marcas annui redditus Decano et Capitulo dicte ecclesie ad calciamenta puerorum Elemosinarie.

In Dei nomine Amen. Ego Willelmus de Tolleshunte, Elemosinarius ecclesie Sancti Pauli

¹ continuo.

London, in firmo proposito visitandi limina Apostolorum Petri et Pauli, Rome, Deo disponente, in remissionem peccatorum meorum, condo et ordino testamentum meum xx die Januarii A.D. secundum cursum Ecclesie Anglicane 1328 sub hac forma . . .

Item lego pueris ecclesie quos ego educavi senioribus in Elimosinaria existentibus cuilibet xij^d et junioribus cuilibet vj^d . . .

Item lego Hugocionem meum meliorem et Priscianum majorem et minorem in uno volumine ligatum, et Ysodorum ethemologiarum, et omnes libros meos gramaticales preterquam illos quos habet Radulphus clericus meus, et omnes quaternos sermonum de Festo Sanctorum Innocencium, quos tempore meo solebant Episcopi Puerorum pronunciare, ad remanendum in Elimosinaria predicta imperpetuum, ad usum fructum puerorum in eadem degencium, ita quod nullatenus accommodentur extra, aut alienentur.

Lego eciam libros artis dialectice, de quibus Johannes de Stanground habet veteres logicas et novas, cum libris naturalium et alios libellos artis ejusdem, quod hujusmodi libri accommodentur pueris aptis ad scolatizandum cum ab elemosinaria recesserint; ita tamen sub ydonea caucione restituendi, ne alienentur.

Libros eciam fisicales quos habeo plures de medicinis, et eciam libros juris civilis, viz. Instituta, Codicem, Digestum Vetus, et Authentica, ac alia scripta legalia, lego ad usum puerorum modo et forma superscriptis.

Item duas marcas annui redditus cum omnibus pertinenciis suis in London exeuntes de temento quondam Walteri de Geddyng, quod postmodum habitavit Dominus Edmundus de Passele miles, prope veterem piscariam, mihi legatas per Dominum Ricardum de la Mare de Bernolby, capellanum, ad ordinandum et disponendum de eis pro animabus ejusdem Ricardi et Domini Johannis de Lyndeseya avunculi sui, prout salubrius et commodius videro expedire imperpetuum, sicut plenius patet in testamento ipsius Ricardi, probato, proclamato et irrotulato in Hustingo London de placitis terre die Lune in crastino Sancte Trinitatis anno regni Regis Edwardi filii Edwardii xvij^o, do et lego Decano et Capitulo ecclesie Sancti Pauli London et eorum successoribus imperpetuum, ad augmentum piorum operum Elemosinarie ipsius ecclesie sicuti subinseritur¹;

ut videlicet, Elemosinarius dicte ecclesie, qui pro tempore fuerit, imperpetuum dictum redditum duarum marcarum colligat et percipiat, et pueris Elemosinarie choro ecclesie deservientibus, quibus ante hec tempora nihil certum pro calciamentis extiterit² ordinatum de dicto redditu de calciamentis necessariis provideat imperpetuum quatinus dicta pecunia se extendat.

Pro quibus calciamentis predicti pueri singulis diebus mane cum surrexerint, et sero priusquam eant cubitum psalmum De Profundis Clamavi cum Pater Noster, et Ave Maria; et orationibus Inclina Domine, Miserere, et Fidelium, pro animabus dictorum Ricardi et Johannis, et eciam pro anima mea et animabus omnium fidelium defunctorum, dicent imperpetuum.

In testimonium premissorum sigillum meum presentibus apposui et ad majorem huius rei evidenciam sigillum Capituli Sancti Pauli ad negocia apponi procurari. Datis et actis London die et anno supradictis.

Istud Testamentum factum fuit per Dominum Willelmum de Tolleshunte Elemosinarium ecclesie Sancti Pauli et coram nobis Decano et Capitulo exhibitum et approbatum, ac sigillo nostro communi ad negocia consignatum, in testimonium approbacionis ejusdem ad rogatum dicti Testatoris in Capitulo nostro xij Kalendas Februarii A.D. mcccxxvij.

Testibus Willelmo de Shoredich, aurifabro, Johanne de Horkesle, ligatore librorum, Johanne Blome, Gilberto ymaginario, Johanne de Waltham, pictore, Edwardo de Loing, et Thoma Aunsel et aliis.

Istud Testamentum probatum fuit, proclamatum et irrotulatum in Hustingo London de communibus placitis tento die Junii proximo ante festum S. Margarete anno regis Edwardi III post Conquestum quarto. Waltham.³

¹ subscribetur, Hackett.

² ex tunc, Hackett.

³ Omitted by Hackett.

ST. PAUL'S SCHOOL BEFORE COLET

Hoc Testamentum Domini Willelmi de Tolleshunte nuper ecclesie nostre elemosinarii antea in vita ejusdem Willelmi coram nobis Decano et Capitulo S. Pauli London probatum, iterato iij Kalendas Marcii post mortem ipsius Willelmi A.D. mccc^m. xxix^o probatum fuit coram nobis.

GIFTS TO ALMONRY BOYS (CHORISTERS) AT OBITS.

[St. Paul's Mun. W. D. 9.]

Idibus Julii. Obiit Thomas Ayswy :

Majoribus Canonicis	xl ^s
Minoribus Canonicis	ii ^{mccs}
Vicariis Capellanis et Secundariis	xxx ^s
Servientibus	xl ^d
Pauperibus per manus Elemosinarii	8 ^{li}
Ad vesturam puerorum	xx ^s
Summa £14 quos solvet Cancellarius de ecclesia de Borham una cum	xl ^s
Ad obitum Henrici de Sandwyco Episcopi. Termini solucionis sunt	
hii : In crastino quo cantatur Letare Jerusalem	xii ^{mccs}
Et in crastino S. Johannis Baptiste	xii ^{mccs}

ix Kalendas Augusti. Obiit Radulphus Baldok :

Majoribus Canonicis presentibus in officio	l ^s
Pueris elemosinarie	xii ^d

xvi Kalendas Septembris. Obiit Johannes de Wengham :

Majoribus Canonicis	j ^{mcc}
Minoribus Canonicis	ii ^s
Vicariis	vj ^d
Capellanis	ij ^s
Servientibus	x ^d
Pueris elemosinarie	viiij ^d

xv Kalendas Septembris. Obiit Rogerus de la Leye :

Pueris elemosinarie	viiij ^d
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Nonis Octobris. Obiit Henricus de Borham :

Majoribus Canonicis	v ^{li}
Minoribus Canonicis	xviiij ^s
Pueris elemosinarie	v ^s

Prior de Leye solvet de terris in Borham.

vii Idus Octobris. Obiit Willelmus de Cateteshante :

Octo pueris elemosinarie	viiij ^d
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vi Idus Octobris. Pueris elemosinarie

De tenemento W. de Bussle in parochia Omnium Sanctorum in Bredestrete. viij^d

v Idus Decembris. Obiit Ricardus de Graueshende Episcopus.

Pueris elemosinarie	ix ^d
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PAYMENTS FOR ALMONRY BOYS (CHORISTERS) FROM CHANTRIES.

[St. Paul's Mun. W. D. Chantry Certificate by Dean and Chapter.]

R. *Baldock's* Chantry.Item to pore students being sum tyme choresters of the saide Cathedral Church towards ther exhibition yerely xxx^sJ. *Poultney's* Chantry. 22^o Edward III.Item to chorysters of Paules yerely for their somer lyveres xx^sR. *Mundey*.To the choristers of Pawle's yerely liij^s. iiij^dThos. *Ever*. H. iv.To the poore choristers of Paules towards their exhibicion in the University yerly payde xxx^sT. *Morel*, Dean. H. vi.To the Amener of the Cathedral Church of Paules in London towards the fyndyng of the chyldren ther yerely paiede xiiij^s. iiij^d.

PETITION TO KING ON BEHALF OF THE THREE SCHOOLS OF LONDON FOR PROHIBITION TO LORD MAYOR'S COURT SUPPORTING RIVAL SCHOOLS.

[*Rotuli Parliamentorum*, iii. 324. 17 Richard II.]

1393-4.

Au Roy nostre tres redote Seigneur supplient voz humbles Chapelleins et devoutz orateurs W. Ercevesque de Cantirbirs, l'Evesque de Loundres, le Dean de vostre franke Chapelle de Seint Martin le Grant, et le Chancellor de l'Eglise de Seint Paul en Loundres, que combien que par la Loy esperituel, et Custume en celle partie prescript, l'ordenance, disposicion, et examinacion des Mestres de certaines Escoles de la facultee de Gramer deinz votre Citee de Loundres, et les Suburbes d'icelle, as ditz Ercevesque, Evesque, Dean, et Chancellor, ove l'avys du dit Evesque de Loundres, de temps dount memoire ne court, et a nulles autres pertinerent, pertinent, ou pertenir devoient ; nientmoins ore tard ascuns estranges lour feynantz Mestres de Gramer, nient appris' suffisamment en mesme la facultee, sanz assent, scieu, ou volonte des avant ditz Ercevesque, Evesque, Dean, et Chancellor, volentrivement usurpantz lour Jurisdiccion et poair, encountre loy et custume tiegnent Escoles generales de Gramer en vostre dite Citee, en deceite et illusion des enfantz, en grant prejudice de voz liges, et de la jurisdiccion de Seint Esglise : Et par la ou les troys Mestres des Escoles de Seint Paul, et des Arches, et de Seint Martin avant dit, pur grant ease et profit de voz ditz subgiez ont pursuiz lour droit encountre les estraungers Meistres suis ditz en Court Christiene, selonc la forme de la loy de Seint Esglise, et en grant partie de lour plee procedez, les ditz estranges Mestres ont pursuiz devant Vous en Court seculer encountre les ditz troys Meistres duement receuz et auctorizez, aulin que les ditz Meistres estraunges puissent tenir lour Escoles generales sanz assent des Ercevesque, Evesque, Dean, et Chancellor suis ditz, et que les ditz troys Meistres suis ditz deussent entierrement surseier de lour dite processe en la Court Christiene suis dite.

Plese a votre roial Magestee grantier voz graciousees Lettres du Prive Seal, directez as Mair et Aldermans de vostre dite Citee, eux comandantz, que par consideracion si bien de l'interesse

que Vous avez en ce cas a cause de vostre franke Chapelle suis dite, come le prejudice des Ercevesque, Evesque, et autres suis ditz, qu'ils ne soy mellent, n'attemtent rien en celle partie, par ont la Jurisdiccion de Seint Esglise, ou le proces entre les ditz parties eue en la Court Christiene soit destourbe, encountre la forme de la Loy et Custume ent usee, pur Dieu, et en oeuvre de charite.

PETITION OF COMMONS THAT NO SON OF A LABOURER IN HUSBANDRY
MAY PUT HIS SON APPRENTICE UNLESS HE HAS 20s. A YEAR AT
LEAST IN LAND, BUT MAY PUT HIM TO SCHOOL.

[Statutes of the Realm, 7 Henry IV. c. 17.]

1405-6.

Mes qil soit mys de servir a autiel labour, soit il deinz Cite ou Burgh ou dehors, come ses ditz Piere ou miere usent, ou autres labours come leur estates requiergent. . . .

Purveux toutesfoitz que chascun homme ou femme de quele estate ou condicion qil soit, soit fraunc de mettre son fitz ou file d'apprendre lettereure a quelconque escole que leur plect deinz le Roialme.

WRIT OF PRIVY SEAL OF KING HENRY VI. FOR LETTERS PATENT FOR
TWO NEW GRAMMAR SCHOOLS IN LONDON.

[P.R.O. Privy Seals, 24 Hen. VI. 8101 *seq.* Printed in *Excerpta Historica* (London, 1831), 5.]

1446. 3 May.

Henri by the grace of God King of Engelande and of Fraunce and Lorde of Irlande To oure Chancellor of Engelande greting.

For asmoche as the right reverent fader in God Therchebisshopp of Canterbury and the reverent fader in God the bisshopp of London considering the greet abusions that have ben of long tyme withinne oure Citee of London that many and divers persones not sufficiently instruct in gramer presumynge to holde commune gramer scoles in greet deceipte aswel unto their scolers as unto the frendes that fynde them to scole have of their greet wysdome sette and ordeigned .v. scoles of gramer and no moo withinne oure said Citee; Oon withinne the chirche yerde of Saint Poule; an other withinne the collegiate Church of Saint Martin; the thridde in Bowe chirche; the iiijth in the chirche of Saint Dunstan in the Est; the .v. in oure hospital of Saint Anthony withinne oure said Citee. the whiche thei have openly declared suffisantz, as by their lettres patentes their upon maad it appereth more at large We in consideracion of the premisses have therunto graunted oure Royal wille and assent Wherfore we wol and charge you that here upon ye doo make oure lettres patentes under oure greet seel in due fourme declaring in the same oure said wille and assent, yevyng furthermore in commaundement by the same oure lettres unto alle oure subgittes of oure said Citee that thei nor noon of thaim trouble nor empeche the maistres of the said Scoles in any wyse in this partie. but rather helpe and assiste thaim in asmoche as in thaim is Yeven under oure prive seel at Guildeforde the iij^{de} day of May The yere of oure regne. xxiiij. Langeport.

Memorandum quod sexto die Maij anno vicesimo quarto superscriptum istud breve liberatum fuit Cancellario Anglie exequendum.

LETTERS PATENT OF HENRY VI. AS TO GRAMMAR SCHOOLS IN LONDON.

[Pat. 24 Henry VI. pt. ii. m. 28.]

PRO MAGISTRIS GRAMATICALIBUS IN CIVITATE LONDON.

1446. 6 May.

Rex omnibus &c. Salutem.

Sciatis quod cum venerabiles in Christo patres Archiepiscopus Cantuariensis et Episcopus Londiniensis ex eorum provida et innata prudencia magnas abusiones infra civitatem nostram London temporibus diuturnis frequentatas et usitatas Considerantes, quod quamplures et diverse persone in arte gramaticali minus sufficienter instructi scholas communes gramaticales pueros nonnullos et eorum amicos ipsos ad scholas exhibentes nequiter defraudando infra eandem civitatem tenere presumpserunt, quinque duntaxat scholas gramaticales, et non plures infra civitatem predictam statuerunt et ordinarunt;

unam videlicet, infra cimiterium ecclesie Sancti Pauli;

aliam infra ecclesiam nostram collegiatam Sancti Martini magni;

terciam in ecclesia Beate Marie de Arcubus;

quartam in ecclesia Sancti Dunstani in Oriente;

et quintam in hospitali nostro Sancti Anthonii civitatis nostre predicte;

quas per eorum litteras patentes sufficientes declararunt, prout in eisdem plenius apparet;

Nos de gracia nostra speciali premissa considerantes ad omnia predicta firmiter fienda et observanda nostrum regium assensum adhibuimus et favorem. Et hoc omnibus quorum interest innotescimus per presentes.

Damus autem omnibus et singulis ligeis nostris civitatis nostre predicte quod nec ipsi nec eorum aliquis perturbent nec impetant, perturbet nec impetat Magistros scholarum predictarum quovis modo in hac parte, set prius eis assistant et subveniant quantum in se existit.

In cuius &c. Teste Rege apud Westmonasterium vj die Maii.

Per breve de privato sigillo et de data predicta auctoritate Parliamenti.

PETITION FOR ESTABLISHING FOUR NEW GRAMMAR SCHOOLS IN LONDON, HENRY VI.

[Rotuli Parliamentorum, v. 137.]

1447.

To the full worthy and discrete Communes in this present Parlement assembled; Please it unto the full wyse and discrete Communes in this present Parliament assembled to considre, the grete nombre of gramer Scholes, that somtyme were in divers parties of this Realme, beside tho that were in London, and howe fewe ben in thise dayes, and the grete hurt that is caused of this, not oonly in the Spirituell partie of the Chirche, where often tymes it apperith to openly in som persones, with grete shame, but also in Temporell partie, to whom also it is full expedient to have compotent congruite for many causes, as to youre wisdoms apperith. And for asmuche as to the Citee of London is the commune concours of this lond, wherin is grete multitude of younge peple, not oonly borne and brought forth in the same Citee, but also of many other parties of this lond, som for lake of Scole maistres in thier oune Contree, for to be enfourmed of gramer there, and som for the grete almesse of Lordes, Merchauntz and other, the which is in London more plenteously doon, than in many other places of this Reaume, to such pouere Creatures as never shuld have be brought to so greet vertu and connyng as thei have, ne hadde hit ben bi the meane of the almes abovesaid; Wherefore it were

expedient, that in London were a sufficeant nombre of Scoles, and good enfourmers in gramer, and not for the singuler availl of ii or iii persones, greuously to hurte the multitude of yonge peple of all this Lond; For where there is grete nombre of Lerneris, and fewe Techers, and all the Lerneris be compelled to goo to the same fewe Techers, and to noon other, the Maisters wexen riche in money, and the Lerneris pouere in connyng, as experience openly shewith, aynst all vertue and ordre of well puplik. And thise premises . . . and sturen of grete devotion and pitee, Maistre William Lychefeld, parson of the parich Chirche of all Halowen the more in London; Maister Gilbert, parson of Seint Andrewe in Holbourne subarbs of the saide Citee; Maister John Cote, parson of Seint Petre in Cornhull of London; and John Neell, Maister of the Hous or Hospitall of Seint Thomas of Acres, and parson of Colchirche in London, to compleyne unto you; and for remedie besechyn you to pray the Kyng our Soveraigne Lord, that he bi thadvys and assent of the Lordes Spirituell and Temporell, in this present Parliament assembled, and bi auctorite of the same Parliament, will provide, ordeyne and graunte, to the saide Maistre William, and his successours, that thei, in the seid parisshe of all Halowen; to the said Maistre Gilbert, and his successours, that thei in the saide parisshe of Seint Andrewe; to the said Maistre John, and his successours, that thei in the said parisshe of Seint Petre; and to the said John Maistre, and his successours, that thei within the forsaid parisshe of oure Lady of Colchirche, in the whiche the said Hous of Seint Thomas is sette, may ordeyne, create, establish and sette, a persone sufficiently lerned in gramer, to hold and exercise a Scole in the same science of gramer, and it there to teche to all that will lerne; And that everiche of the saide Maistre William, Maistre Gilbert, Maistre John, and John Neel Maistre, suche Scole maister so bi him sette, and everiche of theire successours, suche Scole maister bi him, or bi any of his predecessours so establisshed and sette specially as is above rehercid, may in his owne parich or place remove, and an other in his place substitute and sette, as often as any of the said persones, or their successours, semith that cause resonable so requireth; and so to doo, iche of the said persones and their successours, as often as it happenyth any of the said Scoles to be voyde of a Scole Maistre, in any maner wise; to the honour of God, and encreasyng of vertu.

Responsio.

The Kyng wille, that it be do as it is desired; so that it be doone by thadvyse of the Ordinarie, othereles of the Archebisshope of Canterbury for the tyme beyng.

THE THEOLOGICAL SCHOOL OF THE CHANCELLOR OF ST. PAUL'S.

[*Gregory's Chronicle* (Camd. Soc. N. S. xvii. 1876, ed. by James Gairdner), 230.]

1465.

Ande be fore thys tyme the fore sayde Docter Ive¹ kepte the scolys at Poulys þat ys undyr the chapter house, and there he radde many fulle nobylle lessonys to preve that Cryste was lorde of alle and noo begger, and he dyde hyt afyr the forme of scholys, for he hadde hys abyte and hys pelyon, and a vyrger with a sylvyr rodde waytynge uppon hym. And the same fryer of Menors that answeyd the Whyte Fryer answeyd hym onys, and many tymys he² dyspute and radde in that³ scholys; he kepte hyt more then ij yere.

¹ Ive was, in 1463, Master of Whittington College. In 1458 he had been assigned by William Say, Dean of St. Paul's, to preach before King Henry VI. He "had been at Winchester in Wychem his College", as informant or head master from 1444 to 1454.

² Dr. Ive.

³ MR. GAIRDNER'S NOTE: "The Cathedral School of St. Paul, not the present St. Paul's School, which was founded at a later date by Dean Colet and dedicated to the Child Jesus." [This is, of course, a twofold error. The school mentioned was the Theological School on the south side of the church, not the Cathedral School properly speaking, *i.e.* the Grammar School, which was at the east end of the churchyard, a few yards north of which Colet built the new school, taking over the old school as part of its endowment.]

ST. PAUL'S BOY BISHOP'S SERMON.

[Printed by Wynkyn de Worde, c. 1496, and thence in Camden Society's (N. S. xiv) *Miscellany*, vii. p. 1, ed. E. F. Rimbault, 1875.]

c. 1490.

IN DIE INNOCENCII SERMO PRO EPISCOPO PUERORUM.

Laudate pueri Dominum.

PSALMO CENTESIMO XIJ^o et pro huius collacionis fundamento.

Prayse ye children almyghty God, as the¹ Phylosopre sayth in dyuerse places. . . .

As an arowe of hymselfe can not be mouyd ne dyrectyd unto the prycke without the redy conueyance of hym that shoteth, through whom dyrectly he attayneth his ende and is shotte to the prycke. . . . It is not in mannes power to ouercome vyce of hymselfe. . . . Moche more those that bene chyl dren for tendernesse of aeye and lacke of knowledge can not direct theyr dedes conueynently to that ende wythout specyall helpe of god. In token herof children newly sette to scole, lackynge the use of reason and the habyte of cognycion, haue a recourse to Goddys direccyon, Fyrste lernynge this (Cristis Crosse be my spede), And so begynnyth the a. b. c. In wytnesse of defawte of this perfeccion in knowlege, Pictagoras to the dyreccyon of Chyl dren founde fyrste thys letter in the a. b. c. Y the whyche as Ysider sayth Ethimologis is formyd and made after the symylytude of mannys lyfe. For this letter. *y*. is made of two lynes. One is a right lyne, the other is half ryght and half crokyd. And soo verily the Infant aeye of a chylde is right nother disposyd to vertue nother to vyce. . . .

But the seconde aeye is callyd Adolescencia, and hath two lynes, a ryghte and a crokyd, signyfyenge the dysposycion that he hath thenne to vyce and to vertue. In the whiche aeye is the brekyng of euery chylde to goodnes or to lewdenes. . . . Thre thynges sayth Salomon ben harde to me to knowe. . . . But the fourth moste harde is to understonde The waye of a man in his growynge aeye. Tho children thenne the whiche lacke discrecyon, use of reason, and perfyghte cognycion, and yet attayne to thende that is preparid for mannys blysse, As thyse blessid Innocentes whoos solemnyte we halowe this daye (Qui non loquendo sed moriendo confessi sunt). . . .

In the begynnyng thenne of this symple exhortacion, that I a chylde, wantynge the habite of cunnynge . . . make . . . prayers. In the whiche prayers I recomende . . . my broder byshopp of London your Dyocesan Also for my worshipful broder Deane of this cathedral chyrche, wyth all residensaries and prebendaries of the same And moost intierly I pray you to haue myself in your specyall devocion, so that I may contynew in this degree that I now stonde, and neuer her after to be vexed wyth Jerom's visyon . . . whanne . . . he answerde and sayd (virgam vigilantem ego video) A waken rodde I se, sayde Jeremy. Truely thys waken rodde ofte tymes hath troubled me in my chyldehode, that lumbi mei impleti sunt illucionibus, et non est sanitas in carne mea . . . And therfor, though I be now in hys dygnyte, yet whan I se other here my mayster that was thenne, Operuit confusio faciem meam. . . . As Nero the emperour wolde to his mayster Seneca, the same wysshe I wolde to my mayster I loue soo well. And for ther true dylygence that al my maysters the whyche taughte me ony cunnynge in my youthe gaue to me, I wolde they were promyttid to be perpetuall felowes and collegeners of that famouse college of the kynges foundacion in Suthwerk that men calle the kynges Benche, gretter worshypp I can not wysshe than for to sytte in the kynges owne benche. And for by cause Charyte is perfyghte yf it be extendyd as well to thende of the lyfe as it is the lyfe self, I wolde they sholde ende ther lyfe in that holy waye the whyche often times I radde whan I was Querester, in the Marteloge of Poulis; Where many holy bodyes deyed, callyd in latyn (Via Tiburtina), in englysshe asmoche to saye as the highwaye to Tiburne. . . .

Prayse, ye children, your god in your infant aeye; prayse ye hym in your growynge aeye;

¹ Here and throughout "th" is printed for the thorn used in the original.

And prayse ye hym perseuerauntly (usque in senectum et senium) in your mannys aege And in thye iij praysyng of iij aeges shall stonde the processe of this symple collacion. . . .

. . . somtyme ryghtwysnesse was the cheyf ruler ; Now Falshede is quarter mayster. . . . somtyme trouth stode upryghte, now he is fallen. Gode men haue inserchyd the strete where he felle. Some sayd he fell in Lombarde strete. Some sayde in Buklars bury. And whan it was utterly knowe he was fallen in euery strete. . . .

Whan that infant aege is ended, the fader prouydeth for hys chylde For a mayster, the whyche gyueth instruccion in small doctrines, as in his Donat, Partes of reason, and suche other, the whyche mayster comynly is callid pedagogis in Latin. Thys maister geuyth commande- mentes to the chylde in his growyng aege. And he breke them he is sharpely correctyd. There is no fawte that he doth but he is punyshyd ; somtyme he wryngeth hym by the eere ; sometyme he geueth hym a strype on the honde wyth the ferell ; sometime betith him sharply wyth the rodde. And so wyth commaundementes and sharpe correccion he geuyth hym full Instruccion in the lawer scyence. . . . As mankynde grewe in aege almyghty god prouided to man an enformer that was callyd Moyses, the whiche shold teche man his pryncipalles and smalle and rude doctrynes. And so the olde lawe taughte to man his Donat and Partes of reason. . . . And if we differre and woll not correcte ourselfe here in the scole of mercy, full greuously and moost sharply shall we abyde the swerde of correccion. . . .

The fourme and the maner how we sholde worship . . . In Chyldehode, Yongthe, and Manhode, Is shewyd to us by a praty conceyte of oure comyn Kalender in euery boke of servyse. . . . By *Kalendas* is understonde childhode . . . dedicate to devocion ; thenne set the faders the children to scole, Thenne be they taught to serue god, to say grace, to help the preest to synge ; For to be meke, gentyll, and lowely. Thenne say they oure lady matens, and ben ryght deuoute. . . . By the seconde daye that is callyd *Nonas* I understonde the seconde aege, that is callyd Juuentus . . . and herto . . . may the youthe of man applyed, that is in specyall from xiiij. yeres unto xvij. ; In the whiche he is ful of undeucyon. . . .

THE THEOLOGICAL SCHOOL OF THE CHANCELLOR.

[REGISTER OF BISHOP FITZJAMES, f. 127 b ; printed in W. Sparrow Simpson's *Registrum Statutorum*, 413.]

Ordinacio Domini pro lectura in theologia.

c. 15 . .

In Dei nomine Amen. Cum ad honorem Dei fideique Cristiane et virtutis incrementum et continuationem, ministrorumque Ecclesiae Cathedralis Sancti Pauli London omniumque clericorum et presbiterorum in hac inclita urbe commorantium et aliorum illic indies confluentium disciplinam et salutaris doctrine fomentum, divinique pabuli verbi Dei nutrimentum, per devotos, probosque, ac recolende memorie viros, in eadem Ecclesia pia consideratione fuerit ab antiquo salubriter statutum, provisum, et ordinatum, Quod Cancellarius Ecclesiae Cathedralis predictae quiscunque pro tempore existens, lecturam in sacra theologia per se, vel per alium continue legeret et observaret, atque pro onere ipsius lecture supportande et continuande Ecclesia parochialis de Yeling, Londoniensis diocesis et jurisdictionis, ac Episcopi pro tempore existentis collacionis, cum suis juribus et pertinenciis universis dignitati cancellariatus in eadem Ecclesia fuerit et sit per bone memorie N., olim ejusdem Ecclesiae verum patronum ac ordinarium, appropriata, unita, annexa, et incorporata, Lecturaque praedicta per nonnullos dicte Ecclesiae Cancellarios eorum temporibus successivis annis transactis fuerit laudabiliter et effectualiter observata et continuata. Tandem tamen, quorundam Cancellariorum ejusdem Ecclesiae incuria, culpa, desidia, et negligencia, incepit esse adeo rara, intercisae, et discontinuata, quae et si paucis diebus unius anni observata et celebrata fuerit, per multos tamen sequentes annos neglecta, deserta, et pretermissa extitit, atque sic neglecta, deserta, et

pretermissa existit in presenti, prout facti evidencia et notorietas rei hoc inpresenciarum certo cercius manifestat et declarat :

Unde, cum nos, Ricardus Fitzjames, permissione divina London Episcopus, Ecclesiam nostram Cathedralē predictam et singulos ministros ejusdem juxta pastoralis officii debitum, gracia reformandi ea que erant ibidem reformatione digna, lapsaque in eadem erigendi et reparandi nuper visitaverimus, prout ipsam et ipsos de diebus in dies sic adhuc visitamus, inter cetera, in hujusmodi nostra ordinaria visitatione generali, detecta et comperta per nonnullos nostre Ecclesie praeedictae ministros, piis animis et devotis mentibus, nostro fuit detectum officio, et exinde gravis quodammodo proposita querela, Quod lectura predicta tam utilis, quam necessaria ac devotis animis commodifera, per multos retroactos annos fuit penitus neglecta, quodque in dissuetudinem abiit, Sane, pendente visitatione nostra hujusmodi, habitis super premissis, in nonnullis sessionibus nostris, cum dilectis filiis Decano et Capitulo ejusdem Ecclesie, et magistro Willelmo Lichfield, Cancellario ejusdem moderno, tractatu, communicatione, et matura deliberatione, comperimus quod propter verbum *continue* in ordinatione et fundacione ipsius lecture insertum, Cancellarius Ecclesie predictae, cui onus sustentacionis et exhibitionis ipsius lecture incumbere et incumbit, illud onus sufferre et sustinere omisit, nimis grave et summe durum reputans et existimans tantum onus continue subire et supportare debere : Cum itaque plerumque in futurorum eventibus sic humani fallitur incertitudo judicii, ut non nunquam quod conjectura profuturum credidit, subsequens temporis transcursus intollerabile reddit et nocuum, ideo, non debet reprehensibile judicari, si, secundum varietatem temporum, statuta quandoque varientur humana. Et quemadmodum ad officium cujuslibet pertinere dinoscitur presidentis pro subditorum commodis salubriter ordinata facere inviolabiliter observari, sic, non minori cogenti rationis imperio, negligenter omissa et collapsa in revolutionem et restauracionem oportet deducere, et novi appositione remedii erigere, et renovare prudencius sic omissa. Unde nos, Ricardus, Episcopus antedictus, sentientes melius, utilius, ac honorabilius esse benignam et favorabilem interpretacionem illius verbi *continue* facere, ut ex hoc exercitium et officium memorate lecture saltem ad aliqualem usum et observanciam restauretur, et ad utilem statum reducatur quam quod hujusmodi lectura propter importabile et durum onus continue observanciae ejusdem omnino praetermittatur et negligatur, habitis itaque super hoc, videlicet, quomodo illud verbum *continue* sit intelligendum et que ac qualis lectura censeatur vel intelligatur, esse continua, et aliis hujusmodi lecture restauracionem, observanciam, et continuacionem concernentibus, cum Decano et Capitulo predictis tractata et matura deliberacione, Quedam statuta, ordinationes, provisiones, interpretaciones, declaraciones, et decreta, cum prefatorum dilectorum filiorum Decani et Capituli, ac Magistri Willelmi Lichfield, Cancellarii moderni, cuique interesse specialiter vertitur in hac parte, voluntate, consensu, et assensu expressis, facienda sive condenda decrevimus, per que sepepredicta tam salubris quam fructuosa lectura sic, ut premittitur (quod dolentes referimus quasi extincta), reviviscat et reincipiatur (Domino annuente) de cetero inperpetuum mansura. Quapropter, de voluntate, consensu, et assensu expressis predictis, statuimus, ordinamus, et decernimus quod Cancellarius Ecclesie nostre Cathedralis predictae modernus, et quilibet ejus successor futurus, singulis annis inperpetuum lecturam predictam, sub modo, forma, excepcionibus, et provisionibus infrascriptis loco consueto observare et continuare teneatur. In primis quidem, in vim voluntatis, consensus, et assensus predictorum, volumus, statuimus, ordinamus, et decernimus, quod Cancellarius hujus modi, per se, vel per alium ejus deputatum, ad hoc sufficientem et idoneum, leget lecturam in theologia in Ecclesia nostra Cathedrali predicta per tres dies simul et successive, vel per intervallum, seu saltem continuatos singulis septimanis, si tot dies fuerint in septimana legibiles, et a diebus ferialis sive festivis vacaverint. Sin autem tot dies festive, sive solennes feriale[s], in una septimana intervenerint et interciderint, quod non sint in una ebdomada tres dies legibiles a diebus festivis, sive feriali[bus], ut premittitur, vacantes, tunc volumus, statuimus, ordinamus, et decernimus, ut premittitur, quod per duos dies in illa septimana lecturam suam observabit. . . .

COLET'S EPITOME OF ST. PAUL'S STATUTES.

[BOOK II.]

Chap. 15. DE CANCELLARIO.

Cancellarius Ecclesiae et Capituli Scriba est : nam ad eum pertinet componere et scribere Epistolas Capituli, et legere coram Capitulo eas quae ad Capitulum transmittuntur. Is praecipue Sigillum custodit, et quae sigillanda sunt sigillat. Is praest omni lectioni in choro, et videt, ut quicquid legatur, id rite, pulchre, et distincte legatur : docet in hoc genere ignorantes, laudat beneficientes, male legentes corripit, et castigat. Episcopo aliquando legenti ultimam lectionem ipse Cancellarius librum sustinens ministrat. In maioribus Festis sexta lectio ab ipso Cancellario legi debeat. Is etiam praest literaturae, non solum Ecclesiae, sed etiam totius civitatis. Omnes Magistri Grammaticae ei subjiuntur. Is in Schola Pauli Magistrum idoneum, quem ante Decano et Capitulo praesentaverit, praeficit ; et aedes illius Scholae sumptibus suis reficit. Is etiam libros Ecclesiae omnes scholasticos custodit, et Magister eruditionis et doctrinae est ; et auditoribus legere oportet sacras Literas, ad Dei cognitionem, et ad vitae et morum institutionem. Item, de numero librorum, et integritate eorum, quotiens vocatus fuerit, reddet rationem.

DE MAGISTRO GRAMMATICIS.

Magister Scholae Grammaticae vir probus et honestus debet esse, atque multae et laudatae literaturae : is pueros doceat Grammaticam, maxime eos qui sint Ecclesiae ; eisdem exemplum bonae vitae ostendat : caveat magnopere ne scandalizet teneros animos aliqua foeditate, vel facti vel sermonis ; quinimo simul cum casta literatura imbuat eos sanctis moribus : sitque eis, non solum grammaticae, sed etiam virtutis, Magister. Is loco Cancellarii scribit in tabula, atque notat ordine, quid quisque legat in Ecclesia. Is etiam Magister habitum gerat in Choro, et in maioribus Festis primam lectionem legat.

COLET'S RE-FOUNDATION AND NEW ENDOWMENT OF ST. PAUL'S SCHOOL, 1508-12.

[From Colet's "Book of Evidences" among the Mercers' Company's Muniments.]

PREFACIUNCULA JOHANNIS COLETT IN HUIUS LIBRI CONTENTA.

c. 1512.

[f. I.] I, John Colett, Deane of Paulis, sonne and heyre unto Sir Henry Colett knight and Alderman of the cite of London and twyse Mayre of the same, havyng lefte unto me of my fader bothe certeyn goodes inoenable and also lands called patrimony, desyryng the said lands and goodes to be dispendid and to be disposed in suche use as in my mynde shal be moost honorable to God and profitable to man ; and seeyng as in my iugement nothing better in this world nor more commodiouse to Crist's church, that is to sey, all Cristendome ; and for the reformation of the same nowe sorowfully decayed bothe in goode maners and cleane litterature than good institucion and bringyng upp of childern in faith and charitie in wysdome and goode lyvyng in goode letters and laudable conversacion.

In the yere of oure lorde god A thousand fyve hundred and eight beganne to edifye in the Estende of the Churchyerd of Paulis a scole house of stone for childern theryn to be tawght free to the nowmbre of an hundred fyfty and three.

And also ordeyned twoo techers perpetuall oon callid the Maister, and that other callid the Ussher or surmaister and conveyent stipend for their labours. And also bielled a mansion adjoyning to the saide scole at the northside for the maisters to dwell yn.

And in the yere of our lord a thousand fyve hundreth and twelff full accomplished and synysshed the same scole and mansion in every poynt.

And made overlookers and surveyors supportours and maynteyners of the same scole and mansyon the honest substanciall and faithfull crafte of the Mercers of London of whiche companye my said fader was oon.

And gave also to the perfourmyng of the charges of the said scole by the way of sufficient mortefying after the order of the realme of Englund lxxxiiijth vijth viijth clere above all charges, oonly reparacions except

and also my place in the parisshe of Stebbunhith. And delivered unto the saide Mercers all the evidences of the saide londs and all the writtings of the mortefying of the same, they alway to lye and remayne in the chamber of the scole.

And for bicause whan it shall be necessary to see eny wrytting concernyng the saide londs they shall not be compelled to bryng owte theire evidence I caused this booke to be written, in whiche is conteyned the very ensamples and copies of all the wryttings and muniments to the said matter apparteignyng as hereafter apperith, unto which booke they may resorte from tyme to tyme to have in it as sufficient instruction as thoughe they looked in the very origynalls.

MINUTES OF THE MERCERS' COMPANY.

MAISTER DOCTOR COLET, DEAN OF POULES, FOR THE SCOLE.

Courte of Assistens holden the ixth daye of Aprell the yere above written [1510].

1510. 9th April.

[f. 193.] When it was shewed by Maister Thomas Baldry mercer that Maister Doctour Colet, Dean of Poules, had desired hym to shewe unto the Compenny that he is disposed for the foundation of his scole to mortife certen londes whiche he wold that this Compenny shulde have if they wolde be bounde to maynteyne the said scole accordyng to the foundacion aforsaid, and after long communication had amonge theym it was agreed that Maister Thomas Saymer oon of the Wardens and the said Mr. Thomas Baldry shall have communication with the said Maister Deane in the said mater and as thei shall se theryn to bryng reporte agayn to the Compenny of Assistens.

Relacion from Mr. Deane of Poules for the Scole, xij Aprill.

1510. 12th April.

Maister Thomas Saymer, oon of the Wardens, shewed that he and Thomas Baldry had been with Maister Dean of Poules accordyng as it was agreed at the last courte of Assistens and had felde parte of his mynde for the foundation of the Scole in Poules church yarde, whereof he proposith to make oure Compenny Conservators and Rulers, and desireth not to charge us forther then suche londes as he shall gyve us for the maytenaunce of the said scole may always be sufficient to discharge us; and the same Maister Deane will go unto the Kyng's grace and make suyte for the mortifying of the lands of the said Foundation, and at his returnyng again he will desire to have more communycation with the Compenny. Wherfor it is agreed that the said Maister Saymer and Thomas Baldry shall go unto hym and knowe his further pleasure in this matter and to bringe reporte unto the Compenny, and if they shall seme good to take with theym such other of our Compenny as they shall thynke best.

REPORTE OF THE COMMUNICACIONS WITH MR. DEAN OF POULES.

1510. 16th April.

When was shewed by Maister Thomas Saymer Warden and Thomas Baldry that they had ben with Maister Deane of Poules and had communycacion with hym for the foundation of the Gramer Scole whiche he entendith to founde and make in Poules Church yarde. And the same Maister Deane was verrey glad that he myght have with us communycacion thereof in whom he proposith to put all the rule and governance of the said scole.

And for that he wolde the Compenny should better understonde what that he entendith to put in oure handes for the mayntenance of the said scole, and further of his good mynde which he bayreth unto this felyshepp he delyvered a bill to the said Maister Wardens and Thomas Baldry conteynyng theryn the names of certeyn londes and the yearly value thereof clerely whiche he wolde that we shulde have for maynteynyng of the said scole and other certen articles comprised in the said bill, the copie whereof hereafter foloweth:

[f. 194.] Bukynghamshire

Weston Turvile by yere clerely	.	.	.	.	.	.	xxj ^{li} xj ^d
Aston Clynton	.	.	.	.	.	.	vj ^{li} x ^s iij ^d
Shirryngton	vij ^{li} xvij ^s vj ^d

Cambridgeshire

Barton by yere clerely	vj ^{li} xiiij ^s iij ^d
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} xxxv^{li} xj^s ix^d

Hertfordshire

Barkway by yere clerely viij^{li} wiche is in
fee farme etc.

Summa omnium predictorum lⁱⁱ v^s j^d

Item his mynde is that ye shalbe charged to pay withyn the cite of London yerely lⁱⁱ in suche maner as he shall devise.

Item when the Compeny aforesaid had redd the forsaid bill and understoud his good mynde unto us they were well content and gave hym thankyns, and were also well content to go further with hym in the said mater, and after that the articles whiche he shall drawe for the good Rule and sure contynuaunce of the said scole shal be by us sene and well understoud, thanne we to shewe hym oure myndes thereyn and than to desire of hym to have suche Rule and order as we shall deme requisite and necessarie.

1510. 17th April.

MAISTER DEAN OF POULES.

The yonge men departed, the lyverey abode, to whom it was shewed of the good mynde and will that Maister Dean of Poulis bayrith unto the Compeny in whom he is fully purposed to put his trust and confidens to have the rule and governaunce of his scole as more largely it apperith by dyvers courts of assistens before holden. Wherewith the Compeny were well content and desired Maister Wardens that they wolde take some payns and diligens for thacomplysshement of the said good intent, &c.

COLET'S PETITION TO THE KING FOR LICENCE IN MORTMAIN TO ENDOW THE SCHOOL.

1510.

SUPPLICATIO AD REGIAM MAJESTATEM.

In the moste humble wyse shewith and besechith youre mooste gracioux highnesse youre contynuall oratour John Colet Deane of the cathedrall church of Seynt Paule within youre cite of London. That where youre said oratour to the pleasur of God and for and in augmentacion and encrease as well of connyng as of vertuose lyvyng within this your realme hathe nowe of late edifyed within the limitory of the saide cathedrall church a Scole house wherein he purposith that children as well borne and to be borne withyn youre said cite as elsewhere to the same repaying shall not onely in contynuaunce be substancially taught and servyd in laten tung; but also instructe and informed in vertuose condicions, whiche by goddis grace shall largely extende and habunde to the commen well of the people of this your Realme. And to the grete coumfort and commoditie of your grace and to youre heires: to have yong children of youre Realme bothe in conyng and vertue graciously brought upp in avoydyng manyfolde vices whiche these dayes for lake of suche instruccion in youth been grely rootid and contynued in yong people to the grete displeasure of God, and for the perpetuall contynuaunce of the charges of the same for ever to be borne paid and susteyned according to such ordre and direction as youre said oratour by the speciall favour and licence of your Highnesse purposith to make and ordeyne. He intendith to geve and mortyfe landis and tenementis of the clere yerely valew of fifty and three poundis in the countie of Bukyngham to some body corporat at his denomynacion. In consideracion whereof it may please your Highnesse of your most habundant grace and goodnesse by your gracioux lettres patents under your grete seale in due forme to be made to graunt and licence your said orator to geve and graunt manors lands and tenements in the said countie of the clere yerely valew of fyfty and three poundes above all charges to som body corporat and licence to the same body corporat the same landes and tenements to receyve and take to thentent beforesaid ony statute of landes and teneiments to mortmayn not to be putt notwithstanding. And that withoute fyn fee or other charges thierfore to be paide or borne to youre grace. And youre said oratour shall duely pray to God for the prosperitie of youre moste noble and royall estate long to endure.

The result of this supplication was the grant of letters patent dated 6th June in the 2nd year of Henry VIII., i. e. 1510, not, as too often wrongly given, 1511. As they have been several times printed, the letters patent need not be given here in full. They recited that nos (the king)

considerantes pium propositum Magistri Johannis Colet S.T.D. Decani ecclesie cathedralis S. Pauli Londoniis in edificacione jam cujusdam scole in cimiterio dicte ecclesie pro pueris in dicta Scola crudiendis in bonis moribus et litteratura pro meliori sustentacione unius Magistri et unius Hostiarii (usher) sive duorum Hostiariorum ejusdem et aliarum rerum necessariarum ibidem fiendarum granted licence custodibus et communitati mistere mercerie civitatis London et successoribus suis quod ipsi et successores sui dominia maneria terras (&c.) ad annum valorem £53 ultra omnia onera et reprisas . . . acquirere et recipere possint.

The patent was, in accordance with the petition, expressly granted without fine or fee; a not unusual concession when the foundation was educational.

THE DEAN AND CHAPTER'S GRANT TO THE GRAMMAR SCHOOLMASTER, W. LYLY,
OF A STALL IN CHOIR.

1510. 27th July.

Concessio Decani et Capituli Magistro scole grammaticalis de ingressu chori ecclesie cathedralis predictae et stallo congruenti ab antiquo solito et quod ab omni exactione parochiali ipse et sui liberi et immunes sint, ac gaudeat et gaudeant privilegio quo domus Elemosinariorum puerorum dicte ecclesie quo ad sacramenta ecclesiastica gaudet, etc.

Universis Christi fidelibus ad quos presentes littere pervenerint seu quos infrascripta tangunt aut tangere poterint in futurum, Johannes Colet S.T.P. Decanus ecclesie cathedralis Sancti Pauli London et ejusdem loci Capitulum Salutem in auctore salutis.

Quia tam de antiqua laudabili et legitime prescripta consuetudine quam etiam statutis et laudabilibus consuetudinibus dicte ecclesie Cathedralis Magister scole grammaticalis prefate ecclesie Cathedralis Sancti Pauli London quicunque pro tempore existens ex corpore nostro, pro tempore quo magister ibidem steterit, fuerit atque chori memorate ecclesie tempore divini officii ingredi atque in stallo congruenti et prout solitum fuerit sedere quando ad premissum accedere voluerit sive laicus sive sacerdos existat, dummodo honeste et superpellicio commodo et congruenti hoc faciat, solebat et consuevit;

Atque tam in et pro ejus persona quam pro domo sua sive hospicio suo eadem libertate qua magister domus puerorum Elemysinariorum ejusdem ecclesie gaudet et gaudere solebat.

Hinc est quod nos discretum virum Magistrum Willelmum Lyly primum magistrum nove scole Sancti Pauli opere lapideo pro eruditione puerorum tum in bonis moribus tum etiam litteratura in cimiterio ecclesie Sancti Pauli in parte orientali ejusdem gracie edificata et fundata et ejus successores in hujusmodi officio succedentes in corpus nostrum et dicte ecclesie assumimus;

Et ut ipse magister Willelmus Lyly et successores sui hujusmodi eorum officium circa premissa, quod valde saluberrimum et oportunum estimamus, quietius exercere valeat, et circa erudicionem puerorum in premissis diligentius vigilet et attendat, eidem Magistro Willelmo Lyly magistro hujusmodi et successoribus suis damus et concedimus atque presenti nostro scripto confirmamus quod tam hujusmodi magister scole quam ejus domus sive hospiciu et successores sui in eodem officio ab omni exactione parochiali libera sit atque sint eorum quilibet, atque consimili gaudent, et gaudeant eorum singuli, privilegio quo domus Elemosinariorum puerorum memorate ecclesie gaudet.

Et quod in illa domo nullum alium recognoscant aut recognoscat eorum aliquis curatum quam cardinales ecclesie cathedralis predicta a quibus omnia ecclesiastica sacramenta recipere debet et debebunt eorum singuli.

Salvis tamen nobis et successoribus nostris tribus libris sterlingorum pro portione hujusmodi domus sive hospicii per manus mercerorum London secundum formam indenturarum inter nos et eosdem mercesos in hac parte singulis annis infuturum solvendis.

In quorum premissorum fidem sigillum nostrum commune presentibus apposuimus, Datis 27 die mensis Julii A.D. 1510.

Courte of Assistens.

FOR THE SCHOLE OF POULES.

1510. 13th August.

When it was shewed by Maister Simon Rice that Maister Dean of Poules desired of the Compeny that they wolde do so muche labour as to call som lerned counsaill unto theym and to devise some maner wrytyngs wherby that the Compeny myght surely holde of the Dean and Chapitour of Poules the grounde wheruppon the scole house and the dwelling place for the Maister is or shalbe edified, and suche wrytyngs so devised, the said Maister Deane will cause to be sealed with the chapitour scale of Poules, The Compeny agreed that Maister Wardens with John Kyene and Beniamyn Dygby shall call lerned counsaill unto theym and to se the said wrytyngs made under the best maner that may be devised for the suretie of the felishipp and the pleasour of the said Maister Deane.

General Courte of Merchantt Adventurers.

FOR THE SCOLE HOUS AT POULES.

1510. 17th August.

When after all were departed save oure owen Compeny it was shewed that whereas Mr. Deane of Poules and the Chapitour had sealed a dede of estate indented betwene theym of Poules and this compeny with the Chapitour scale, by the whiche we shulde receyve possession of the grounde whereuppon the scole hous is buylded in Poules churchyard and the scolemaister house shalbe buylded, to remaine to this place forever, when the counterpane shuld have been sealed with our comen scale and graunted; but afterwards by lerned counceyll another conveyance was devised to bryng the said londs to the compeny.

ST. PAUL'S SCHOOL BEFORE COLET

Assemble of the lyvery the xxiiijth daye of September.

FOR THE SCOLE AT POULES.

1510. 24th September.

Whereas Maister Doctour Colet, Deane of Poules, was present and shewed unto the cumpeny that he had opteyned certeyn wrytyngs of the kyngs good grace wherby he hath licens to mortyse in the cuntrey to this Compenny liij^{li} londe by yere for the foundation of the scole hous nowe lately bulded in Poules churcheyerde of the godes of the said Maister Dean, whiche wrytyngs he brought with hym and shewed unto the Cumpeny and thanked theym of theyr good myndes that thei bare unto hym touchyng the said foundation, that it wolde please them to graunte unto hym to have the charge and besynes thereof. Sheweth more that by the grace of god he woll indevoyr hym so that he trusteth to put the Compenny in possession of the said lands on this syde Cristenmas next or sone after, and desired of the same compeny that they wolde assigne iiij persones that might resorte unto hym at suche tyme as he shall sende for theym to ask avise comen and conclude uppon the synnysshing of the premysses Than the cumpeny electe and chose theis persones whose names be after written to be dayly at his commaundement when he shulde send for them—Mr. Symon Ryce, Warden; John Keme; Beniamyn Digby; Thomas Saymer. And for defaulte of theis forewritten persones it was agreed that theis folowyng shall gyve hym their attendaunce when and as often as they shall be desired.

John Hosyer.

Ric. Berne.

William Browne.

Thomas Baldry.

John Robyns.

Thomas Hynde.

Moreover the said Maister Dean shewed unto the Compenny that for suche labour and busynes they and their successors shulde have in ordering of the said scole that they shulde have in this cite of London uppon this poynt of xl marke by yere in rents, &c.

Also where as the Wardens and Felishipp at the instance of the said Maister Dean had indented and covenanted with John Byrde carpenter for the buyldyng of a dwellyng house for the Scole maister in Poules Churcheyerde for the whiche the said Wardens and Compenny be bounde by indentures to paye unto the said John Byrde jexiiij^{li} vj^s viij^d sterling. The said Maister Dean delyvered openly afore the Compenny at the assemble unto Maister Simon Ryce cc^{li} st. in nobles and ryalls in parte of payment of alle suche costs and charges as shall be necessarie to be spent and paide for buyldyng of the said dwellyng place.

GRANT BY THE DEAN AND CHAPTER TO THE TRUSTEES OF THE SITE OF THE NEW
GRAMMAR SCHOOL.

1511. 28th March.

Carta Decani et Capituli facta diversis personis de terris ubi nunc erecta est nova Scola cum hospicio pro Magistro eiusdem scole.

Sciatis presentes et futuri Quod Nos Johannes Colett Sancti Theologie Professor et ecclesie Sancti Pauli Decanus ac ejusdem loci capitulum dedimus concessimus et hac presenti carta nostra confirmavimus Johanni Hosyer de civitate London, Mercer, Beniamyn Dicby de eadem civitate, Mercer, et Synoni Rice de eadem civitate, Mercer, totam illam terram nostram jacentem juxta murum cimiterii ecclesie Cathedralis predicte ad partem orientalem inde, scilicet inter tenementum Alicie Crnce vidue ex parte australi et tenementum nunc in tenura Andree Renne ex parte boreali, et continet in longitudine ab austro usque ad boream 120 pedes assise et in latitudine ab oriente usque ad occidentem 33 pedes assise, super quam nunc de novo edificatur domus sive scola grammaticalis de opere lapideo cum hospicio pro Magistro ejusdem.

Habendum et tenendum totam predictam terram cum omnibus edificiis super eandem constructis prefatis Johanni Hosyer, Beniamyn Dicby et Simoni Rice et heredibus suis imperpetuum ad opus et usum dictorum [J. H., B. D., and S. R.] et heredum suorum imperpetuum;

et nos vero prefati Decanus et Capitulum et successores nostri totam predictam terram prefatis [J. H., B. D., and S. R.]; heredibus et assignatis suis contra omnes gentes warantzabimus et imperpetuum defendemus per presentes.

Sciatis insuper nos prefatum Decanum et Capitulum assignasse fecisse locoque nostro posuisse et constituisse dilectos nobis in Christo Dominum Willelmum Clerke clericum et Mauricium Haukebroke nostros veros et legitimos in hac parte attornatos ad deliberandum seisinam [etc.].

In cuius rei testimonium huic presenti carte nostre nos prefati Decanus et Capitulum sigillum nostrum apposuimus, Datis in domo nostra capitulari 28 die mensis Martii A.D. 1511: et anno regni Regis Henrici octavi secundo.

GRANT BY THE DEAN AND CHAPTER TO THE SAME TRUSTEES OF THE OLD SCHOOL
OF POULIS.

1511. 28th March.

Carta Decani et Capituli facta diversis personis de antiqua scola cum quatuor shopis subtus eandem constructis.

Sciunt presentes et futuri Quod Nos [Dean and Chapter have granted and confirmed to the same three mercers as in last deed] totam domum gramaticalem sive messuagium nuper vocatam Poulis scole et quatuor shopas subtus eandem domum sive messuagium constructas nunc in tenura Willelmi Barell civis et groceri London et Johanne uxoris ejus pro termino annorum, situatam prope portam vocatam Seynt Austeyns gate videlicet inter teneimentum pertinens Magistris sive Custodibus Pontis London, in quo Johannes Hichcoke civis et mercator scissor London modo habitat ex parte orientali, et quandam magnam portam cujus introitus ducit a regia via ibidem usque ad in cimiterium Ecclesie Cathedralis predicte ex parte occidentali, et continet in longitudine a predicto teneimento usque ad magnam portam predictam 55 pedes assise et in latitudine 20 pedes.

Habendum et tenendum totam predictam domum sive messuagium et predictas quatuor schopas prefatis [the three mercers. Warranty of title and power of attorney to deliver seisin follow, with witness clause as in last deed].

RELEASE BY THE CHANCELLOR OF ST. PAUL'S TO THE SAME TRUSTEES OF HIS RIGHTS
IN THE OLD SCHOOL.

1511. 28th March.

Relaxacio Cancellarii antique scole et de toto jure suo in eadem.

Omnibus Christi fidelibus ad quos presens scriptum pervenerit Magister Willelmus Lichfeld cancellarius ecclesie Cathedralis Sancti Pauli London[iensis] Salutem in Domino.

Sciatis me prefatum Willelmum remisisse relaxasse et per presentes imperpetuum quietum clamasse Johanni Hosyer, Beniamyn Dicby et Simoni Rice in eorum plena et pacifica possessione existentem totum jus titulum statum clameum et interesse et demandam que unquam habui habeo seu quovismodo in futurum habere potero de et in tota domo gramaticali sive messuagio nuper vocato Poulis scole (as in last).

Ita quod nec ego nec heredes nec successores mei nec aliquis alius nomine meo seu heredum vel successorum meorum aliquod jus [&c.] in predicta domo gramaticali sive messuagio predicto et predictis quatuor shopis cum pertinenciis de cetero exigere clamare vel vindicare poterimus, sed ab omni actione juris statu titulo clameo interesse et demanda inde et cujuslibet inde parcelle simus imperpetuum penitus exclusi per presentes.

In cujus rei testimonium huic presenti scripto meo sigillum meum apposui Dato 28 mensis Marcii anno regni Regis Henrici octavi post conquestum Anglie secundo [1511].

PROFESSION BY THE CHANCELLOR THAT THE RELEASE OF THE OLD SCHOOL WAS VOLUNTARY.

1511. 5th April.

Professio voluntarie relaxacionis antique scole magistri Willelmi Lichfelde, Cancellarii.

Universis sancte matris ecclesie filiis ad quos presentes littere pervenerint sive quos infrascripta tangunt aut tangere poterunt in futuro Willelmus Lichfelde, canonicus et residentiarius ecclesie cathedralis Sancti Pauli London atque cancellarius ejusdem ecclesie Salutem in auctore salutis.

Ad universitatis vestre noticiam omni modo meliori aut efficaciori quo possum aut potero in futuro deduco et sic deduci volo per presentes, Quod, quamquam toto tempore quo officium cancellarie hujusmodi in eadem ecclesia Cathedrali exercui et in eodem officio steti multam operam dederim cunctamque meam diligenciam fecerim ut cognoscerem quam auctoritatem aut quod jus ratione officii mei in illis quatuor shoppis super quos videlicet in quodam superiori longa camera desuper edificata antiqua scola grammaticalis Sancti Pauli London tenta et occupata fuerat, aut in eadem antiqua scola michi ratione officii mei pertineat aut pertinere debeat tam in scriviis quam in statutis ejusdem ecclesie cathedralis Sancti Pauli London ea intencione debite exquiesierim.

Quia tamen, prout coram Deo et in consciencia mea testor et fateor nunquam potui quippiam reperire quod significaret Cancellarium in memorata ecclesia pro tempore existentem aut me in officio hujusmodi aliquod jus in illis shoppis et scola antiqua desuper edificata habuisse, neque ex eisdem quatuor shoppis aut scola antiqua aliquid emolumenti vel redditus accepisse aut percepisse, quantum dicere aut intelligere potui, sed totam illam scolam antiquam una cum quatuor shopis hujusmodi ad Decanum et Capitulum ecclesie Cathedralis predicte pertinuisse, et in eorum jure a diu fuisse et esse, Ideo fateor me sponte et libere,

animo quoque deliberato totum jus quod pretendi in eisdem shopis et scola plene et integre relaxasse et hujusmodi juri scienter et expresse renunciassse [etc. ut supra], prout in quibusdam litteris quorum data est vicesimo-octavo die mensis Marci A.D. millesimo quingentesimo undecimo, et anno regni Regis Henrici Octavi post conquestum Anglie secundo, de et super relaxatione hujusmodi factis et manu mea propria subscriptis, sigilloque meo sigillatis, plene liquet.

Et ut ad majorem declaracionem sive noticiam appareat memoratas litteras per me ut prefertur factas subscriptas et sigillatas fuisse et esse atque ad majorem corroboracionem earundem, easdem litteras atque omnia et singula in eis contenta quantum possum aut potero, et ad me attinet, ut supra, approbo et expresse ratifico volens ulterius et expresse consensiciens quod Decanus et Capitulum supradicti et eorum successores futuri de illis shopis et scola cum suis pertinenciis in utilitatem Nove scole in cimiterio prefate ecclesie Cathedralis Sancti Pauli London nuper edificate, atque magistrorum et hostiariorum in eadem, prout sibi melius videbitur expedire, libere absque contradiccione mea aut successorum meorum imperpetuum.

In quorum premissorum fidem et testimonium presentes litteras manu mea propria subscripsi et eisdem sigillum meum apposui. Datis quinto die mensis Aprilis A.D. quingentesimo undecimo.

THE WARDENS TO HAVE THE ORDER OF THE SCOLE, ETC.

Also showed that Maister Deane wolde knowe the myndes of the Compeny whether they wolde that he shulde devyse the order of the Scole to be in the Wardens for the tyme beyng or ellis to the Assistens. The Compeny answered and said that they wolde that the Wardens for the tyme beyng should have the order thereof and non other.

Item, the said Maister Wardens shewed unto the Compeny that Maister Deane of Poules wolde gyfe us possession in suche londes as he hath mortysed in Bukinghamshire for the foundation of the scole in Poules Churcheyarde and that a letter of attorney was made to Benjamin Digby and Symon Ryce for to go and receyve possession for and in the name of all the Compeny of the Mercerye, whiche letter of attorney must be sealed with oure commen seale, which the Compeny graunted.

1512. 26th April.

At a Court of Assistens holden the xxvjth day of Aprill was elected and chosen theis persones whose names be hereafter written whiche shall wekely attende upon Maister Dean of Poules at suche tyme as he shall appoynte them to com unto the new Scolchous at Poules when as he and they shall devise for to devyse make and ordeigne such ordenaunces rules and constitucions as shall be nedefull for the preservacion thereof.

Mr. John Robyns, Warden.
John Keme.

Symon Ryce.
John Aleyn.

Thomas Saymer.
Benjamyn Dygbie.

THE WARDENS AND ASSISTANTS TO CONCLUDE WITH MR. DEANE OF POULES.

1512. Quarter day holden the xvth day of June.

At the same Court hit was agreed that Maister Wardens and thasistens shall have communycacion with Maister Deane of Poules and to conclude with hym upon all suche articles as shall conserne the conservacion of the newe Scole at Poules, wherewith this felishipp shalbe charged, and what thyngs that the said Master Wardens with the assistens aforesaid shall seeme good to be done thereyn The holl Compeny with oon full consent promyse to be content therewith.

AT A COURTE OF ASSISTENS HOLDEN THE XVIIth DAYE OF JUNE THE BOKE OF ORDINAUNCE OF THE SCOLE OF POULES EXHIBET BY MR. DEANE.

1512. 17th June.

Maister Deane of Poules shewed furth and redd a boke contynyng certeyn articles whercyn he hathe expressed the devise of his will to be fulfilled and observed as well by the Scolemaister in the newe scole at Poules that nowe is and hereafter shalbe as by the children that be or shalbe in the same scole and also by the felishipp of the mercery To whom he hath commyteed all the Rule and governaunce of all thyngs that shall apperteyne to the orderyng and charges that shalbe done and borne for the good contynuaunce and conservacion of the said scole And theym endued with certen londes and tenements sufficient to discharge them for all maner of thyngs that shall be nedefull to the scole aforesaid.

And whan the Compeny had harde this forsaid boke redd and understoude his mynde theryn in every condicion they gave hym grete thankyngs Promysyng hym that the Compeny wilbe glad to endevoure theymself to the accomplyment of his said Will written in the said boke consernyng the said Scole. And the same Dean promysed to sende hither a cople of the said boke &c. to thentent that if any thyng be to be added or demysshed (*sic*) thay may advertyse the said Maister Dean thereof that it may be redressed &c.

COLET'S PETITION TO THE POPE FOR A BULL TO ANNUL THE STATUTES OF ST. PAUL'S
RELATING TO THE CHANCELLOR'S POWER OVER SCHOOLS AND SCHOLARS AND FOR
CONFIRMATION OF COLET'S STATUTES OF THE RE-FOUNDED SCHOOL.

1512.

[Book of Evidences, f. 29.]

SUPPLICATIO AD SANCTISSIMUM DOMINUM NOSTRUM PAPAM.

Beatissime pater, Quum devotus orator sanctitatis vestre Johannes Colet, Sancte Theologie Professor, modernus Decanus ecclesie Cathedralis Sancti Pauli London, attenderet et consideraret nichil conducibilius esse ad cristianam vitam quam ut homines ab ipsa prima puericia ante omnia in elementis fidei catholice et bonis moribus maxime in hiis que sunt de necessitate salutis, que vel parentum incuria vel pedagogorum negligencia pro maxima parte vel ignorant vel non plene tenent, erudiantur, Deinde postea ut in bonis litteris quibus aptiores ad omnia studia fiant probe instituantur et exerceantur;

Et ob eam causam quam idem orator ad honorem Omnipotentis Dei et utilitatem puerorum quorumcunque ut melius in predictis instituantur, magno suo sumptu proprio Scolam quandam in civitate London in platea sive cimiterio ejusdem Cathedralis ecclesie, loco quidem precipuo ac celebri, et quasi inter ipsos oculos civitatis, ubi aliter fuit quedam Scola nullius plane momenti, nunc de novo a fundamento opere lapideo et pulcherrimo non solum edificandam fabricandam et construendam curavit, atque Magistrum preceptores tam sancte vite quam bone litterature constituit sed preterea magnos annuos redditus et perpetuos ad sustentacionem et supportacionem ejusdem scole et magistrorum in eadem donavit et contulit, atque custodes sive gardianos et communitatem artes sive mistere merceriorum in eadem civitate prepositos et electores Magistri et rectores in omnibus ordinavit; et unacum antedictis communitate et custodibus sive gardianis, pro bona continuacione seu conservacione ejusdem scole et magistrorum atque ministrorum sano et deliberato consilio quedam statuta capitula formulas ordinaciones et regulas pias et saluberrimas composuit et ordinavit; aliaque et alias secundum rerum emergenciam pro reformatione et regimine ipsius loci prout et ubi necessarium videatur indies facere atque ordinare intendit, prout huic negotio et huic operi sive intencioni ei melius videbitur expedire;

Cupiens ergo dictus Decanus summopere quod quicquid per eum cum antenominatis communitate custodibus sive gardianis juste et pie circa predictum opus et scolam statumque et regulas ejusdem compositum ordinatumve sit, perpetuam habeat roboris firmitatem;

Et attendens quod in Registro Statutorum et consuetudinum ecclesie London in prima parte in titulo duodecimo sub rubrica "De officio et potestate Cancellarii" scriptum quoddam invenitur in quo disponitur sive inuratur quod "Scolares in dicta civitate morantes subsunt Cancellario dicte ecclesie; et quod ipse Magistrum de artibus Scolis Grammaticis preficiat, et scholas ipsas congrue reparari facere teneatur", ut in dicto libro plenius continetur, ad quem relacio habeatur; ex quo quidem statuto licet satis ineptum sit et in viridi observancia et usu minime habeatur ne posset tamen in futurum aliqua difficultas impedimentum turbacio vel molestia dicte scole fortasse eo pretextu emergere sive provenire, Idcirco ut scola ipsa in quibus deinceps mores docendi et studia celebranda sunt, ac preceptores sive magistri et adolescentes ipsi qui ibidem sunt imbuendi ab omni prorsus molestia et inquietudine perpetuis futuris temporibus sint immunes;

Recurrit igitur, clementissimè pater, orator vester ad pedes sanctitatis vestre, que litterarum studia peculiari quodam presidio semper fovit et benigno favore prosequutus est, eam humiliter supplicando quatinus huic instituto operi ac futuro juventutis conventui et eorum quieti, ex indulgencia apostolica, providendo et consulendo dicto capitulo et statuto et omnibus in eo contentis in quantum disponit quod scolares predicti subsint Cancellario; et quod ipse debeat magistrum ipsis preficere et scholas reparare, ut premittitur, specialiter et expresse derogare; Illud quidem ex toto et in toto, quantum ad scolam predictam preceptores sive magistri ac etiam scolares ibidem futuros et commoratuos attinet, delere, cassare, annullare, et incitare dignetur, Ita quod non liceat Cancellario predicto, neque etiam cuipiam alteri persone cujuscunque gradus, status, dignitatis, condicionis aut preeminencie existentis se de dictis et in dictis scola preceptoribus magistris aut scolaribus et adolescentibus aut eorum aliquo vel eorum ministris, rebus aut bonis ad scolam predictam spectantibus et pertinentibus, et que in futurum ad premissa pertinebunt et spectabunt quovis modo vel facto, seu quovis quesito colore aut cujuscunque auctoritate se ingerere, immiscere vel impedire: necnon omnia et singula statuta capitula, ordinaciones, formulas et instituciones, statum, normam, modum regimen et administracionem dicte scole magistrorum et scolarium et ceterorum ministrorum predictorum concernentes et concernencia facta et in futuro ut premittitur fienda per Decanum predictum una cum dicta communitate custodibus sive

gardianis, ex nunc prout ex tunc, et ex tunc prout ex nunc, auctoritate apostolica ex certa sciencia approbare confirmare et roborare.

Et insuper eadem auctoritate precipere et mandare Reverendo Domino Archiepiscopo Cantuariensi et Capitali Justitiario de Banco Domini nostri Regis Anglie et Majori civitatis London predictae quatinus ipsi vel duo aut unus ipsorum postquam super premissis apostolice littere fuerint expedite, per se vel alium seu alios faciant eadem auctoritate omnia et singula predicta firmiter observari, ac eidem schole communitati custodibus gardianis magistris et scholaribus predictis in premissis et aliis in hac parte necessariis, efficacis defensionis presidio assistentes, non permittant prefatum Decanum scolam communitatem gardianos magistros et scholares contra dictarum ordinationum regularum et formularum factarum et fiendarum tenores quomodo-libet molestari; contradictores quoslibet auctoritate apostolica compescendo concedere et indulgere dignetur de gracia speciali. Non obstante statuto antedicto ac constitutionibus et ordinationibus apostolicis ac predictae ecclesie London juramento confirmatione apostolica vel quavis firmitate alia roboratis necnon aliis etc.¹ cum clausis oportunis et necessariis etc.²

¹ *Sic.*

² *Sic.*

X.—*On a Bronze Age Cemetery and other antiquities at Largs, Ayrshire.* By
ROBERT MUNRO, *Esq., M.D., LL.D., Local Secretary for Scotland.*

Read 9th June, 1910.

A PORTION of the town of Largs is built on a raised beach which here attains a breadth of nearly a mile, though in general it is a mere strip of flat land along the coast. This low ground is fertile, and beyond it rises a picturesque background of grassy hills which shelter the town and bay on the east, a combination of natural advantages which must have rendered the locality an attractive place of abode for man from the earliest times. A plot of cultivated land, near the termination of Nelson Street which intersects the raised beach, was acquired by a townsman as the site of a small villa. The area selected was slightly more elevated than the vacant ground on the east side, but its relative height with respect to its western boundary was uncertain, owing to the land there having been already built upon. It would, however, be no exaggeration to describe it as a low gravelly mound. While digging the foundations of the proposed villa nothing of an archaeological character attracted attention, but later on, in course of some outside operations close to the south wall of the newly erected building, the workmen came upon a small cinerary urn containing calcined bones. The vessel was shaped like a modern flower-pot, without any ornamentation, and stood mouth upwards, having, apparently, been simply deposited in a hole in the gravel. It appears to have been extracted in fragments, and dispersed among private collectors.

Some time afterwards, and not many yards from the same place, an irregularly shaped flag of weathered sandstone was uncovered about a foot below the surface of the cultivated soil. It lay in a horizontal position, and measured from 3 to 4 feet across its flat surface, and 4 inches thick. On its removal, an operation which entailed its being broken into two or three pieces (see fig. 1), there was exposed to view a roughly circular cist constructed of rounded stones about the size of a man's head. The stones, which merely formed a lining to a hole previously dug in the gravel, supported the flagstone, thus serving as an effective cover to the

cist and its contents. The space thus enclosed, measuring 2 to 3 feet in diameter and 18 inches deep, contained no less than seven cinerary urns of various sizes embedded in sand, and all of the same flower-pot shape as the one previously dug up. All the urns stood with their mouths upwards and contained calcined bones. They were made of coarse pottery with thick walls, but so soft and fragile



Fig. 1. The dilapidated cist, showing the broken cover-stone and five of the seven urns found in it. The riddle contains broken pieces of urns and calcined bones.

(Photographed by Mr. W. Coult's Hampton.)

that, on being handled, most of them fell into pieces. Mr. Taylor, the owner of the property, recognizing on this occasion that the relics might be of scientific value, was at a loss how to dispose of them, when, fortunately, Mr. Campbell, Curator of the Glasgow Art Gallery and Museum, having incidentally heard of the find, visited the locality with the object of securing at least part of the spoil for the Museum. The result was that Mr. Taylor generously handed over to him all

that could be gathered together of the urns as a contribution to the Antiquarian collection in his Museum. Mr. Campbell at once took possession of the fragmentary urns and transported them to the Museum, where, after the pieces were slowly dried in a uniform temperature, most of the urns were so far reconstructed as to show their original dimensions (fig. 2). The following measurements were taken by one of Mr. Campbell's assistants and the writer on the 29th June, 1909:



Fig. 2. Some of the urns after being restored.
(Photographed by Mr. W. Coultis Hampton.)

(1) A small flat-bottomed vessel slightly bulging in the middle; height $5\frac{1}{2}$ inches, diameter at mouth $4\frac{3}{4}$ inches, and at base $4\frac{1}{2}$ inches. (The left on upper row, fig. 2).

(2) Another, tapering a little towards the base; height 11 inches, diameter at mouth 9 inches, and at base $5\frac{3}{4}$ inches.

(3) A third measured $8\frac{1}{4}$ inches in height, the same in diameter at mouth, and $6\frac{1}{2}$ inches at base.

(4) A fragment indicated $13\frac{1}{2}$ inches in height, and $6\frac{1}{2}$ inches in diameter at base. Only a portion of the rim remained, and it was perforated with small holes about 2 inches apart.

(5) Another fragment, also perforated at the rim, was $7\frac{3}{4}$ inches in height, $8\frac{1}{2}$ inches in diameter at top, and $7\frac{3}{4}$ inches at base.

(6) One large fragment showed a slightly raised bead running round the body about 2 inches below the rim.

My attention was first directed to these interesting archaeological remains by a paragraph in a local paper, but on visiting the locality little remained to be seen except the dilapidated cist and its broken cover. The photograph reproduced in fig. 1, taken a few days after the demolition of the cist, shows two of the urns lying among some of the stones of which the cist had been constructed,



Fig. 3. An urn with overhanging rim, showing the position in which it lay in the earth.

(Photographed by Mr. W. Coulls Hampton.)

with the broken cover on the left. Other two urns are shown on the margin of the cist, one on each side of the riddle, and one to the right of the broken cover. The conical stone represented in the background was found resting on the cover, and regarded by the workmen as a weight to keep the latter in position.

On a subsequent visit I ascertained that another discovery had been made which considerably enhanced the importance of this unique burial cist. A man, while carting away some of the soil from the back premises, found a perforated stone hammer among the gravel, together with fragments of a cinerary urn. The

carter, on being interviewed, stated that it was only after picking up the stone hammer he observed some fragments of coarse pottery which, in appearance, he could hardly distinguish from the gravel. It was his opinion that the hammer was originally inside the urn before the latter had been broken by his shovel. These relics were then in possession of Mr. Taylor, and, on being told that I was anxious to see them, he very kindly brought them to my house that same evening, and obligingly allowed me to take a drawing of the hammer stone (fig. 4). A fragment of the pottery turned out to be a portion of the rim of a large cinerary urn, having a broad overhanging border ornamented with a zigzag pattern of incised lines, altogether different from the urns hitherto found in the cemetery. Subsequently, a few more urns of a similar type were unearthed in the vicinity of the covered cist, all of which are said to have been deposited in an inverted position in separate holes in the earth, as shown in fig. 3. By this time experience had taught the workmen that these vessels must be handled with the greatest care, but, notwithstanding all efforts in this direction, most of the urns fell to pieces in the act of removal. Two specimens, after being reconstructed under the supervision of Mr. Campbell and his assistants, are now exhibited in the Glasgow Museum. The more perfect of the two is shown in fig. 2, the middle urn on the upper row. Some other fragments, representing at least two more urns of the same type, have fallen into the hands of private collectors.

The cinerary urns now under consideration are differentiated from those found in the covered cist by the following characteristics, viz. an overhanging rim more or less ornamented with patterns of incised lines, a circumscribing hollow neck immediately beneath the rim, similarly ornamented, and a tapering body ending in a narrow or rounded base.

The dimensions of the two urns in the Museum are as follows:

(a) The diameters of no. 1 (see fig. 2) at mouth and base are respectively $14\frac{3}{4}$ and $5\frac{1}{4}$ inches; height $16\frac{1}{2}$ inches. The rim is 3 inches broad, and its surface is ornamented with two herring-bone patterns running parallel to each other. The constricted portion beneath is $2\frac{3}{4}$ inches broad and half an inch deep, and the ornamentation consists of a succession of triangular spaces filled in with incised lines.

(b) The overhanging rim of no. 2 (a fragment) measures 2 inches in breadth, and is ornamented with string-marks arranged in panels in which the marks are alternately horizontal and upright. The diameter at mouth is approximately $7\frac{1}{4}$ inches, and the height 9 inches.

As there was no systematic investigation of the ground, and no archaeological expert present at the exposure of any of the interments, there is a lingering suspicion that the perforated stone hammer might not be the only relic left by the

original owners of the cemetery. Nevertheless, the sepulchral phenomena thus casually brought to light are of the highest importance, especially when correlated with the contents of other prehistoric graves previously discovered in the neighbourhood.

It is to be observed that we are here dealing with a small cemetery of cinerary urns without any surface markings to indicate the position of the respective burials, such as cairns, mounds, dolmens, menhirs, etc. Cemeteries of this description, though apt to remain undiscovered, are not unfrequently encountered in field operations in many districts throughout Scotland. Mr. J. Fullarton, writing in 1858 in his introduction to Pont's *Topographical Account of the District of Cunningham*, thus describes an urn cemetery which will at once be recognized as a complete parallel to that at Largs:

The incineration of the dead would appear to have been of very general use among those aborigines, as is evident from the universal discoveries of cinerary urns which have everywhere been made through the country; nor do they seem always to have been covered by cairns or mounds, but are very frequently found simply sunk into the plain ground from two to three feet under the surface. In such cases, however, they are perhaps for the most part found to occupy slightly elevated and dry places. The woodcut here in the margin was engraved from a specimen of these interesting remains found a few years ago, close by the village of Highthorn, in the parish of West Kilbride. There was a considerable deposit of them at the place, but not many were so sound as to bear being removed. They were very variable in size—from about 15 inches in height down to about 6—the one here engraved measures 13 inches in height by about a foot in width at the brim.¹ They were all either of this pattern or plain in the form of a common flower-pot. No mound or cairn in this instance was found to cover the urns—the ground, to appearance, being quite smooth and in its natural form. . . . They all contained fragments of calcined human bones.

To dilate on the similarity between these two cemeteries is unnecessary, and, as the localities are only a few miles apart, we may accept the evidence here adduced as conclusively proving that this method of disposing of the dead was at least practised in this part of Scotland. The novel and exceptional feature in the Largs cemetery was the presence of seven cinerary urns in one small covered cist, all of which must have been deposited at the same time. It is difficult to suggest an adequate explanation of this fact; except by resorting to some kind of hypothesis, such as the occurrence of a sudden catastrophe which caused the death of a whole family.

¹ The urn figured by Mr. Fullarton belongs to the overhanging rim type and, except for its ornamentation, is precisely similar to the Largs specimen represented in figs. 2 and 3.

According to the chronological researches of the Hon. John Abercromby, the overhanging rim type is the oldest among cinerary urns, having its origin in the south-west of England.

"The oldest examples," he writes, "seem to be found in Cornwall, Dorset, and Wilts. In the two latter counties all gradations of form occur from the beginning to the end of the series, and two varieties of the type, when once developed here, retained their individuality to the last. It has several times been stated that there are no food-vessels in the south-west of England; and though this statement is not quite correct, they are certainly rare. One reason for this circumstance may be, that cremation began earlier in the south-west and south of Britain than further north; in fact, if Mr. W. Borlase is correct, no sepulchral pottery has been found in Cornwall except in connexion with cremated interments. . . . The diffusion of type I (those with overhanging rims) does not seem to have been the result of conquest, for, although the type extends from the English Channel to the Moray Firth, it is only found at present in 25 out of the 40 counties of England, in 5 out of the 12 counties of Wales, and in 18 out of the 33 counties of Scotland. This includes all the seaboard counties of England, except Gloucestershire and several of the Scottish counties that touch the sea. Early examples are also found in the three north-east counties of Ireland. The maritime habits of the inhabitants of the south-west may have had something to do with this uneven distribution."¹

The perforated stone hammer, though an interesting relic and of some chronological value, is not absolutely a new find among grave-goods. Compared with three other specimens, known to have been found in association with prehistoric interments, it is the largest. Made of crystalline trap-rock, called diorite, it has a mottled appearance and a highly polished surface. Its length is $4\frac{3}{8}$ inches, greatest breadth $2\frac{1}{2}$ inches, thickness 2 inches, and diameter of perforation 1 inch. The perforation, evidently intended for a handle, is in the centre, and presents a smooth uniform bore. Its orifice at one end is ornamented by two incised circles and the body tapers a little towards both ends, leaving working surfaces of about one inch in diameter (fig. 4). As instances of hammer stones having been found in analogous circumstances elsewhere the following may be mentioned:

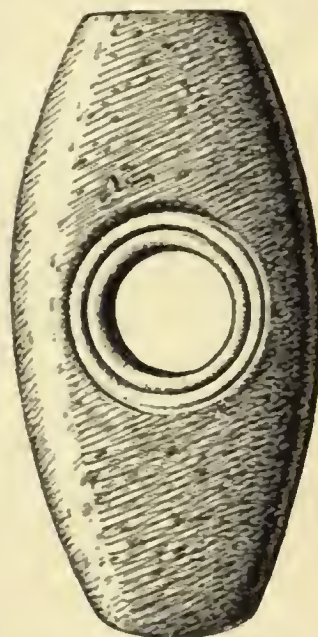


Fig. 4. Perforated stone hammer.

- (1) A perforated stone hammer, described as made of "hornblende gabbro", was

¹ *Proc. S. A. Scot.* xli. 187.

found along with three flint knives in one of the compartments of a chambered cairn in the island of Arran. Its dimensions, taking them all over, are about a third less than those of the Largs specimen, but, as regards material, form, and finish, the two implements are not unlike each other, except that the latter has the perforation nearer one end—which end is slightly smaller than the other.¹

(2) Another pretty little instrument, $2\frac{1}{2}$ inches long, and made of veined quartzite, is rounded at both ends, highly polished, and perforated in the middle. It was found along with a small urn of the food-vessel type in a cairn at Glenhead, near Doune.²

(3) A third specimen, made of grey granite, is 4 inches long, finely polished, rounded at both ends and tapering at one extremity to half the size of the other. It lay among the *débris* of a thick bed of burnt bones and ashes on the floor of one of the chambered cairns of Caithness.³

There is nothing in the circumstances under which all these hammers were found to militate against the supposition that they are genuine relics of the Bronze Age. Indeed, the opinion that they really belonged to that Age is supported by the fact that, among the very few grave-goods recovered from these urn cemeteries, some of them were bronze objects. Dr. Joseph Anderson thus records the result of his experience with respect to five cemeteries of this class in one or two counties in Central Scotland:

In these five cemeteries, including an aggregate of seventy-four separate burials, there was nothing found deposited with the burnt bones, and their enclosing urn, except in one solitary instance. In other words, no implement, weapon, or ornament occurred with seventy-three urns, while two bronze blades occurred with the seventy-fourth.⁴

Other prehistoric burials found in Largs.

We now proceed to discuss briefly the bearing of the two following graves which formerly existed within the boundaries of the town of Largs, with the view of throwing some further light on the chronological sequence of the different burial customs of our early forefathers during the prehistoric period.

The Haylee Stone Cist.

In January, 1906, a stone cist was uncovered on the east side of the Irvine Road, immediately below a commanding site (a little to the north of Haylee House) on which formerly stood a great cairn, and of which a remnant of its megalithic chambers still remains *in situ*. The cover of the newly-discovered

¹ *Proc. S. A. Scot.* xxxvi. 100.

² *Ibid.* xvii. 453.

³ *Ibid.* vii. 499.

⁴ *Ibid.* xiii. 113.

cist, a massive block of conglomerate, and lying some 2 feet under the surface, had to be broken before it could be removed. The interior of the cist measured $4\frac{1}{2}$ feet long, $2\frac{1}{2}$ feet wide, and 2 feet deep. Its walls were constructed of flags of red sandstone set on edge and partly arranged in a double row, in which latter case the intervening crevices were said to have been stuffed with clay. Inside the cist were the remains of a human body, apparently in a sitting posture, and an urn of the beaker type, both of which had been badly damaged by the breaking up of the stone cover. Only a few fragments of the beaker were collected, the largest of which was submitted to the Hon. John Abercromby, who thus describes its principal features:

When whole the beaker must have had a maximum diameter of about 17 cm., a height of about 22.9 cm., and it seems to have belonged to type β , i.e. ovoid cup with re-curved brim. Although such a height is unusual, it occurs with two beakers of the same type from Court Hill, Dalry, Ayrshire, from Largie, Poltalloch, Argyleshire, and on a beaker of type γ , i.e. low-brimmed cup, from Collessie, Fife. . . . So far as I judge, this fragment belonged to a beaker that may be placed about the middle of the Beaker period.¹

Of the skeleton only the skull came into the hands of experts. The following is an extract from a report by the late Professor Cunningham, Edinburgh, to whom it was sent for examination:

The evidence which the Hon. Mr. Abercromby has advanced to show that the beaker urn belongs to the most remote period of the Bronze Age has been the means of stimulating an increased degree of interest in the human remains which have been associated with this form of ceramic.

Dr. Bryce has gathered together the records of twelve crania, all found within the Scottish area, and each singly within a closed short cist, under conditions similar to those under which the Largs specimen was discovered. These crania exhibit a remarkable uniformity in almost all essential details, and one cannot help concluding that they are derived from a very homogeneous and distinct race. The Largs specimen (cephalic index, 84.5) conforms in a striking manner with this type. A very casual examination is sufficient to show, notwithstanding its damaged condition, that in it we have a combination of definite characters seldom, if indeed ever, encountered in association with each other in modern crania.²

The Haylee Cairn.

A writer in *Archaeologia Scotica*, in the course of observations on the Norwegian expedition against Scotland, and especially on the burial of the dead after

¹ *Proc. R. S. Edin.* xxvi. 293.

² *Ibid.* xxvi. 305.

the battle of Largs, thus describes certain sepulchral mounds then extant in the town of Largs:

Just without the churchyard wall there is a considerable cairn, where we may suppose a number of the Norwegian dead are buried. . . . The chronicle makes it pretty clear that this and the other cairns were raised over the Norwegians. Other five tumuli or cairns are marked on the sketch: three behind Brisbane Place, and the houses called the Crescent; one farther up, and one behind the House of Haylee. In these have been found bones, pieces of silver, &c. The last-mentioned cairn may be considered the most remarkable. It has been uncovered by Mr. Wilson, the owner of the land, and it was found to cover a circular building of stones, having an opening on one side, with a kind of passage between two straight walls. In the centre was found the remains of a body, and around it of a number of others to the amount, it is supposed, of thirty. The centre circle was covered by a large round flat stone. The stone building still remains, but the earth that formed the mound upon it has been carried away.¹

The situations of two other cairns are shown, that were very lately removed for the sake of employing the stones in them for making roads. They were on the side of the road leading from Largs towards Haylee, and in the tract where, we have assumed, the chief part of the battle took place.

There are two cairns on the north side of the water of Gogo behind the village upon which Sir Thomas Brisbane has erected pillars for meridian points, to be seen from his observatory at Brisbane House. I have not learned that these cairns were ever opened; and, as the Norwegian narrative does not imply that any part of the battle took place in this quarter, we are not warranted in supposing that they had their origin in Haco's operations.²

What remains of the Haylee monument is situated in the corner of a field near Haylee House, and presents the form of a dolmen or large covered cist. The cover-stone measures $7\frac{1}{2}$ feet long, $5\frac{1}{2}$ feet broad, and 15 inches thick, and rests mainly on the two side stones each about 7 feet long and 3 feet above ground. The enclosed space is about 6 feet long, 4 feet broad, and 3 feet high. Behind this chamber there seems to have been another chamber, now merely outlined by smaller stones, probably the broken bases of those which formed the original chamber. According to the description of this cairn, as quoted above, the present structure is a mere fragment of its former condition. It was locally known as "Margaret's Law", or "Haco's Tomb".

¹ A writer in a local guide says: "In it were found five stone coffins, two containing a number of skulls, besides other bones, and several urns. An immense quantity of bones was found in the cairn not enclosed in the coffins." I need not say that no one now believes that any of these cairns were the burial-places of Norwegians who were killed at the battle of Largs.

² *Archaeologia Scotica*, ii. 382, circa 1822.

Concluding Remarks.

The special features and chronological sequence of these different methods of interment may be thus summarized.

(1) The Haylee megalithic monument containing multiple burials by inhumation may be paralleled with the great chambered cairns of Wiltshire, Somerset, Gloucester, and some other adjacent counties, all of which were constructed by a long-headed (*dolichocephalic*) race. Similar chambered cairns have been found in Scotland, especially in the island of Arran, which have yielded skulls and other bones of this long-headed people. But, on the other hand, within the same geographical areas in Scotland, other chambered cairns have been found which contained burials after cremation and which, of course, supply no data for determining the physical or racial characters of their constructors. It may be surmised from this fact alone that the early people of Scotland had not given up their primitive habit of burying their dead in great stone chambers, when the custom of cremation was introduced and spread rapidly over the British Isles. This custom appears to have been the outcome of strong religious convictions which divided the people into two categories, viz. those who adhered to the old system of burial, either in the earth or under a cairn, and those who adopted the new doctrine that it was necessary to free the soul at once from the corrupt body by the application of fire, before committing the remains to the grave. Although we have no positive evidence of the physical characters of the people who were buried in the Haylee cairn (their osseous remains not being recorded) we have presumptive evidence that they were of the same long-headed race who constructed the megalithic chambers in Arran, both descendants of the earliest inhabitants of Britain.

(2) The next immigrants into Britain were a tall round-headed race (*brachycephalic*) who introduced urns of the beaker and food-vessel types (supposed to contain some kind of semi-liquid food for the journey to the unseen world). These people buried their dead in short cists, and along with the body were generally placed a beaker or a food-vessel and some personal relics. As typical memorials of this kind of burial we have the short stone cist and skeleton on the Haylee ground, already briefly described, which presumably is of later date than the megalithic monument, although the two methods in later times might have been contemporary.

(3) The archaeological phenomena disclosed by the cremation cemetery, the latest of the prehistoric finds found at Largs, indicate a still later phase in the disposal of the dead, a phase in which the structural details of the grave are greatly simplified. The dead body, now regarded as a mere mass of corrupt matter, was first purified by fire, after which the calcined remains were buried in

a hole in the earth, frequently without being enclosed in a cinerary urn. The cairns, mounds, stone circles, and other surface settings which, in earlier times, so conspicuously marked the abodes of the dead, were now by a large section of the communities regarded as unnecessary. Although none of the earlier methods entirely died out, cremation seems to have been the predominating custom in the later Bronze and early Iron Ages, and continued to be so until the introduction of Christianity into Europe. The old funeral rite was soon found to be inconsistent with the new faith.

XI.—*The Album Amicorum.* By MAX ROSENHEIM, Esq., F.S.A.

Read 9th December, 1909.

THE Album Amicorum, or *Stammbuch* as it was called in Germany, where it originated, consisted of a collection of blank leaves of paper or vellum, sometimes kept loose, more often bound up as a book, the leaves being destined to receive the signatures and armorial bearings of the owner's friends and acquaintances; often the signatory added his motto or device, some classical or biblical quotations or sentences, some good advice, and a dedication. Generally speaking, the custom or fashion of the Album did not extend beyond Germany and Switzerland, and only few of them are met with in the Low Countries, Italy, and France. English Albums I have not met with, but at the British Museum (17083) there is a Scottish one to which I shall refer later on.

In 1893 Robert Keil published his and his brother Richard's researches on the subject, the chief material for which they found in the large collection of Albums in the grand ducal library at Weimar.

It is an admirable book, describing chiefly the various phases of the Album Amicorum of students at the German, French, and Italian universities in the sixteenth, seventeenth, and eighteenth centuries, quoting many remarkable mottoes, devices, and sentences, and giving some valuable information about the foundations, grants, and privileges of the German universities and the customs and morals of the students frequenting them.

In attempting to throw light on the origin of the Album Amicorum, these authors suggest that it is the outcome of the tourney book, or of the documentary proofs of noble descent and coat-armour required by the heralds from the knights entering the lists of the tournament, or the outcome of the *Wappenbuch*, the *liber gentilitii* kept by many noble families. They also state that the earliest Albums date as far back as the end of the fifteenth century and that by the time of the Reformation their use had become fairly general.

These are conjectures and statements not warranted by any material they had before them. By the aid of the fairly representative material before us here, and in the MSS. Department of the British Museum, I venture to make some suggestions as to their origin and to prove the earliest date of the Album.

As for the collections of heraldic and documentary proofs for use at tourna-

ments, and the early *Wappenbücher*, it is true that the latter were sometimes called *Stammbuch* or *Stammenbuch*, but there is not the slightest evidence or reason to connect them with the Album Amicorum except on account of the name *Stammbuch* applied to it at the time, and that name I venture to suggest may have been bestowed on the first of them by some students, scions of noble families who remembered the old *Wappenbuch* or *Stammenbuch* at home and wanted to possess and treasure something of the same kind whilst at the universities and travelling through the world. Here I have to lay particular stress on the fact that all the earliest Albums known to us were made up by students at the universities, Wittenberg in particular, and that they do not contain any coats of arms, but simply inscriptions of the owners' friends.

As Knod tells us in *Die deutschen Studenten in Bologna* in reference to the fourteenth and fifteenth centuries, and the Albums in reference to the sixteenth and seventeenth centuries, students and scholars did not restrict their studies to the learning and teaching of one university only; it was the custom after visiting one or more universities at home to travel, although travelling was not an easy matter then, to the foreign seats of learning, and to attend the lectures at French, Netherlandish, and Italian universities; hence we find in many of these students' Albums entries from Bourges, Orleans, Besançon, Paris, Louvain, Leyden, Padua, Bologna, Sienna, etc. Of course, the custom of attending foreign universities was not confined to the Continent: it was also in vogue amongst English scholars and students; thus amongst others we find Sir John Cheke, once the tutor of Edward VI, at Strasburg and Bâle, and in 1555 lecturing at Padua; another learned Englishman, Richard White of Basingstoke, a fellow of New College, Oxford, we meet with at Louvain, then at Padua, where he was created Doctor of Civil and Common Law.

Now, as to Keil's statement that the custom of the Album Amicorum dates as far back as the end of the fifteenth century, and that it had become fairly general at the time of the Reformation, this again must have been based on some misinformation or misconception, as no evidence whatever can be found in its support.

Beside the forty Albums and about five hundred loose leaves in my own collection here exhibited, I have searched the marvellous collection of Albums (there are about 400) in the MSS. Department of the British Museum, the catalogues of the Heraldic Exhibition at Edinburgh, and of the exhibition recently held at Leipzig in connexion with the University jubilee; I have made inquiries at Berlin, Weimar, and of Dr. Albert Figdor at Vienna, who owns an important collection, and I have also seen a MS. catalogue of the extensive collection, now dispersed, of the late Frederick Warnecke; but with the exception of one single specimen mentioned by him, containing inscriptions dated

1548 to 1568. I have not seen any of an earlier date than 1554. The specimen mentioned by Warnecke is a printed book, Melanchthon's *Loci Communes Theologici* (Leipzig, 1548), which its owner, Cristoph von Teuffenbach, whilst a student at Wittenberg University, had bound up with thirteen blank leaves at the beginning and ten at the end, and these leaves contain inscriptions only of his friends in the years 1548 to 1568.

Many of the earliest Albums were printed books, with or without woodcut illustrations, a number of blank leaves having been added at the beginning and end, or having been interleaved. The favourite books for this purpose were the Emblems of Andrea Alciati, of which between 1531 and 1570 alone as many as seventy-five editions had been issued at Augsburg, Paris, Lyons, and Frankfort, but chiefly at Lyons; other books of Emblems by Hadrian de Jonghe, Joannes Sambucci, Nicolaus Reussner, and others; and different editions of Holbein's *Dance of Death*, the *Biblische Figuren* of Virgil Solis and Jost Amman, etc. As I stated before, all these books were interleaved with blank leaves, but as early as 1558 there occurs the first book published expressly for the purpose of an Album Amicorum (plate XXI). It was produced under the title *Thesaurus Amicorum* by Jean de Tournes at Lyons, and is not dated, but cannot be later than 1558, as, according to Brunet, a second edition under a different title appeared in 1559. A certain number of its pages contain short sentences in many different languages and portrait medallions of celebrities of ancient history, in addition to those of Erasmus, Melanchthon, Nicolas Glenard, and Clement Marot; the remaining pages were left blank, but all are surrounded by very beautiful woodcut borders of three different styles, namely: (1) those with grotesque and free subjects, (2) arabesque borders in black on a white ground, and (3) others in white on a black ground.

These borders were formerly attributed to Geoffrey Tory, but they are probably the work of Solomon Bernard, called "le petit Bernard"; they occur again and again in issues of the Lyons printers of that period, and in my opinion some of the woodblocks for these borders, or woodblocks of similar design by the same master, have been used for impressing the arabesque ornaments on the celebrated Henri II. ware, now called *fayence d'Oiron*, of which some beautiful examples may be seen at the Victoria and Albert Museum.

As far as I have been able to discover, the next book issued for the purpose of an Album Amicorum without text but with woodcut borders is the Album of Eberhart ab Eltershofen (Bibl. Eg. 1189), which must have been published in or before 1571, as its inscriptions begin in that year; the woodcut border is probably by Joh. Züberlin.

The fashion of the Album having become more general in the seventies of the sixteenth century, artists and publishers came forward to supply books

specially designed for the purpose, containing woodcuts of religious or mythological subjects, and emblems or shields of arms of celebrated personages, such woodcuts facing either blank pages or pages with blank shields, intended to be illuminated with the arms and to receive the inscriptions of the owners' friends.

The most notable publications were :

I. *Flores Hesperidum. Pulcherrimae Gracciae comicorum sententiae, cum duplici eorum versione latina. . . .*

Stain oder Gesellenbuch. Mit vil schönen Sprüchen. . . . MDLXXIIII.

Colophon : Gedruckt zu Franckfurt am Mayn bey Georg Raben, in verlegung Mathes Harnisch, Bürgers und Buchführers zu Heydelberg. MDLXXIII.

This book is in the British Museum (Bibl. Eg. 1195), and was used as an Album by Andreas Rümelin in 1576.

II. *Ain Newes mund künstlich schönes Stain oder Gesellen Büchlein. . . . Hab ich David de Necker Formschneider von Augspurg . . . zugericht . . . im 1579 Jahr.*

Colophon : Gedruckt zu Wienn in Osterreich durch David de Necker, Formschneider Anno 1579.

III. "*Anthologia Gnomica.*" *Illustres veterum graecae comoediae scriptorum sententiae, prius ab Henrico Stephano, qui singulas Latine convertit, editae; nunc duplici insuper interpretatione metrica singulae auctae, inque gratiam studiosorum, quibus et variae scutorum natalitiorum imagines libello passim insertae usui erunt, in hoc Enchiridion v. CL. D. JOH. POSTHII, GERMERSII, Archiatri Wirzeburg, et P. L. auspiciis collectae a Christiano Egenolpho Fr. MDLXXIX.*

Colophon: Impressum Francofurti ad Moenum, apud Georgium Corvinum, Impensis Sigismundi Feyrerabendij. MDLXXIX.

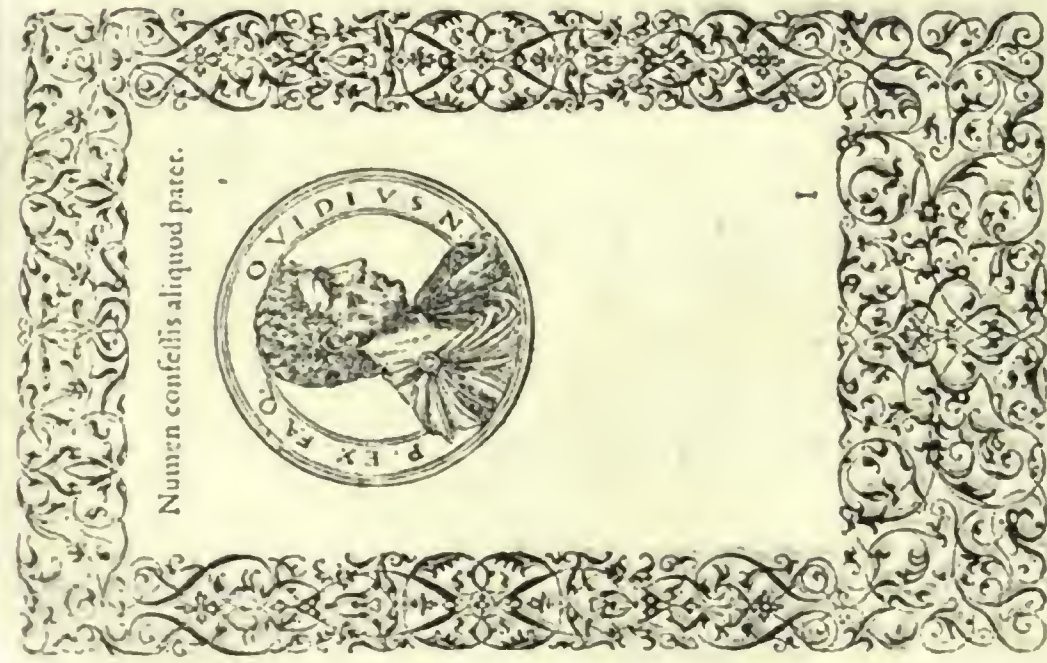
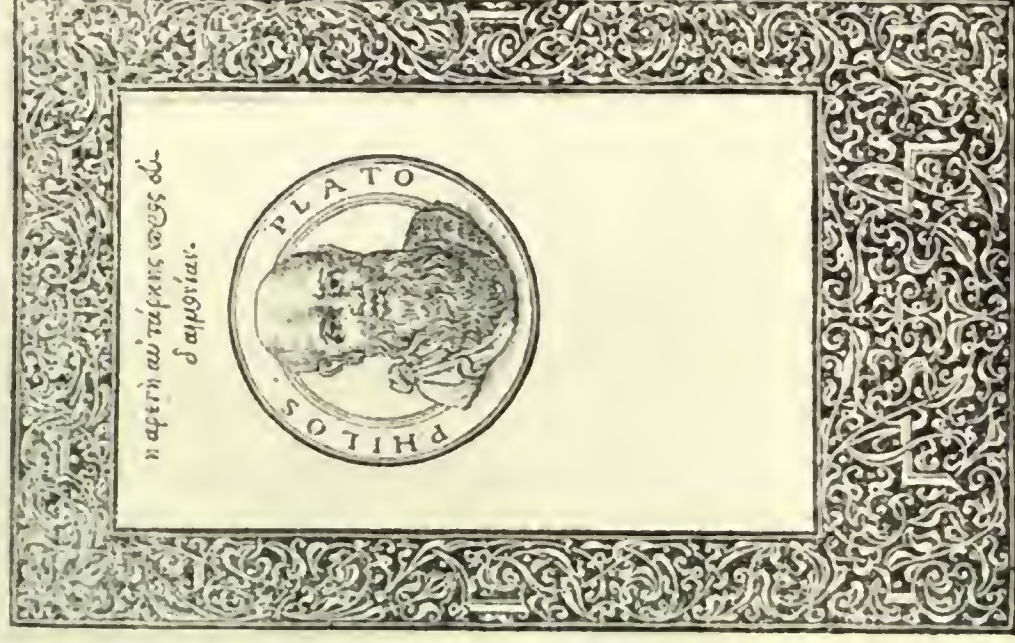
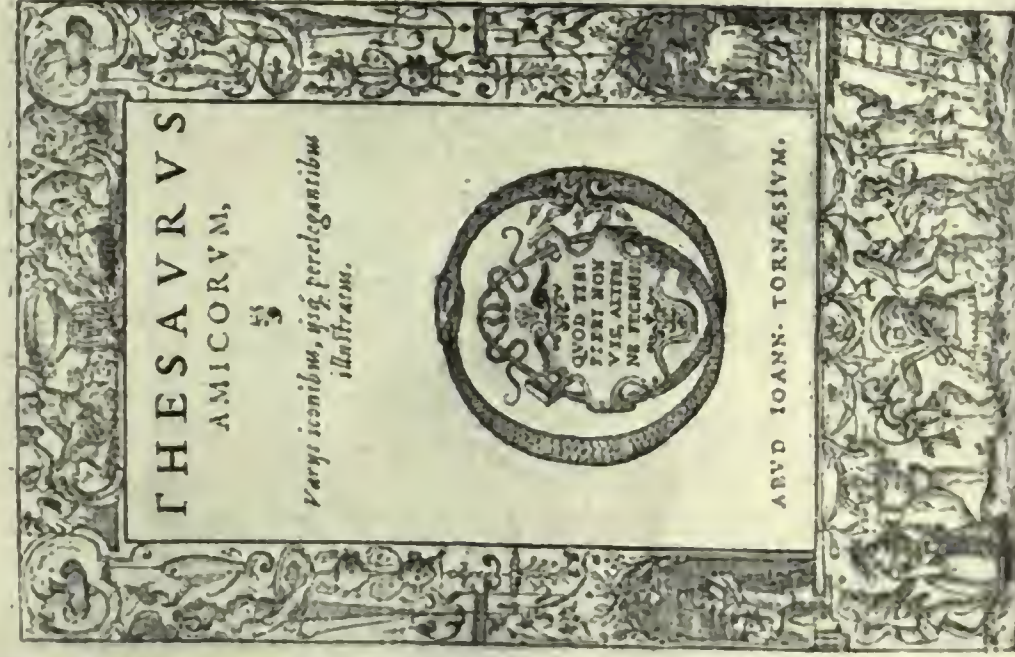
The woodcuts, costumes, and blank shields are by Jost Amman. This book has been interleaved for Johann Josias Kiesen of Waiblingen, and contains inscriptions and the arms of his friends in the years 1590 to 1594. The following is an example of one of the entries. At the head of the page, above the shield, is written :

"An Gottes Segen, is Als gelegen"

1594

The shield bears : *per fess azure and bendy of six gules and silver, in chief a griffin passant gold*, and below is the inscription : "Zu freundtlicher Gedechnuss Georg friederich Röm. Kay. May. Hardtschier. Regenspurg d. 6. 7th." (The Hartschiers were His Majesty's bodyguard.)

Another copy of the *Anthologia Gnomica*, belonging to our Fellow, Mr. Emery



Walker, has been used as an English armorial, and some of the blank shields have been blazoned with English arms about the beginning of the seventeenth century.

A German edition of these woodcuts with different text appeared in the same year under the title:

IV. *Stam̃ oder Gesellenbuch. Mit vielen schönen Sprüchen auch allerlei offenen und bürgerlichen Schildten und Helmen. Allen Studenten und sonst guten Gesellen, so entweder ire Wapen, Reimen und Sprüch, zur gedechtnuss einander verlassen wollen . . . Durch einen Studiosum zu Franckfurt am Mayn . . . 1579.*

Colophon: Gedruckt zu Franckfurt am Mayn bey Georg Raben in verlegung Sigmund Feyrabends MDLXXIX.

Of this edition I only possess eleven leaves, with autographs dated 1585 to 1587 and the blank shields illuminated with the signatories' arms.

A second edition appeared in 1583 under the same title but with the Colophon: Getruckt zu Frankfurt am Mayn durch Peter Schmidt in Verlegung Sigmund Feyrabends.

A copy of this edition is in the British Museum (Bibl. Eg. 1216), interleaved with blank flowered paper for Hanns Brunnhofer of Iglau, and contains a few miniatures, shields of arms, and inscriptions of his friends at Prague dated 1592-1597.

V. *Insignia sacrae Caesaræ Majestatis, principum electorum, ac aliquot illustrissimarum, illustrium, nobilium, et aliarum familiarum, formis artificiosissimis expressa . . . His adjecta sunt totidem vacua (uti appellant) scuta . . . Omnia in gratiam studiosorum . . . Francofurti ad Moenum MDLXXIX.*

Colophon: Impressum Francofurti ad Moenum, apud Georgium Corvinum, impensiis Sigismundi Feyerabendii. MDLXXIX.

This book contains woodcuts by Jost Amman of arms, costumes, mythological subjects, and blank shields. My copy has been interleaved for Heinrich Schott and contains only one inscription, dated 1602.

In the same year (1579) appeared a German edition under the title:

Stam und Wapenbuch hochs und niders Staudts, Darinnen der Romischen Keys. Mt. dess heiligen Röm. Reychss Churfürsten, Fürsten, Grafen, Freyen und Herrn, Auch deren vom Adel, und anderer vom gutem Geschlecht herkommenen Personen, Wapen mit iren Schildt und Helmen . . . eygentlich und auffs fleissigst zugericht. Mit angehengten vielen ledigen Schildten und Helmen . . . Zu nutz und ehren allen der Kunst Liebhabern, Gelehrten und Ungelehrten . . . durch Sigmund Feyrabend. Gedruckt zu Franckfurt am Mayn . . . MDLXXIX.

A second German edition appeared in 1589 with only slight differences; on

fo. 4 verso is a woodcut with the elector of Saxony on horseback, and the numbering of the pages in black-letter and Arabic numerals.

VI. *Cato : sive Speculum morale ; Privatum vitae genus concernens : quod in locos suos redactum, et tam Plautidis Graeca, quam rhythmorum vernacula versione expolitum, instar ALBI AMICORUM se habet.*

Sittenspiegel Catonis : Das menschliche privat Leben betreffend, in ein richtige Ordnung gebracht, und sowol in Schulen als anstatt eines Stammbuchs zugebrauchen.

In Zoilum :

Me mea delectent, tua te, sua queng innuabunt,

Sic tua nec curae sunt mihi ; redde vices.

Francofurdi, Apud Joannem Wechelium MDLXXXV.

Colophon: Francofurti, Apud Joannem Wechelium MDLXXXV.

This book (British Museum 27579) has been interleaved for Johann Cellarius of Nürnberg, and contains the arms and inscriptions of his friends, many of them Nurembergers, dated 1599–1606; on p. 88 is a fugue by John Dowland, the composer, signed: "Jo. dolandi de Lachrimae his own hand." This inscription has already been mentioned by our Fellow, Mr. W. Barclay Squire, in his article on John Dowland in the *Dictionary of National Biography*.

On p. 118 is an entry by Nic. Taurellus, a well-known professor of medicine at Altdorf, dated 1599. By this Nicolaus Taurellus we have a book, printed for the purpose of an Album, under the title:

VII. *Emblemata physico-ethica, hoc est, Naturae morum moderatricis picta praecepta . . . Noribergae Excudebat Paulus Kaufmann MDXCV.*

The backs of the woodcuts, which are copies after Jost Amman, have been left blank for inscriptions. Brunet only mentions two later editions of 1602 and 1617.

Another copy of the first edition is at the British Museum (Bibl. Eg. 1230), interleaved for an Album of Andreas Schopper of Nuremberg, and contains inscriptions of his friends at Altdorf in the years 1603–1621.

All the books hitherto mentioned contain woodcut illustrations only, but the following, issued as Albums, have copperplate engravings, the most artistic ever published for that purpose; they were engraved and published by Theodore de Bry, born at Liège in 1528, a goldsmith and engraver who came in 1570 with his two sons, Johann Theodore and Johann Israel, to Frankfort, where he established himself as an engraver, bookseller, and publisher.¹

¹ He, his sons, and Mattheus Merian, the son-in-law of Johann Theodore de Bry, were the engravers, editors, and publishers of the American, African, and Indian Voyages, 1590–1634, and to make arrangements for these publications Theodore de Bry, and probably his son Johann Theodore, came to London in 1586; on a second visit, 1587–1588, he, or they, engraved the funeral procession of Sir Philip Sidney, after the designs of Thomas Lant, Portcullis pursuivant.



1. THEODORE DE BRY, 1592



2. JOHANN THEODORE DE BRY, 1611

ENGRAVED TITLES, ETC. BY THEODORE AND JOHANN THEODORE DE BRY

Published by the Society of Antiquaries of London, 1910

Theodore de Bry's first Album (plate XXII. 1) appeared in 1592 in oblong duodecimo under the title:

VIII. *Emblemata nobilitati et vulgo scitu digna: singulis historiis symbola adscripta et elegantes versus historiam explicantes. Accessit Galearū expositio, et disceptatio de origine Nobilitatis. Omnia recens collecta, inventa, et in aes incisa a Theodoro de Bry Leodiense.*

Stam und Wapenbuchlein wolgestelte und künstliche figuren, sampt derē Poetischē erklärung, auch vō Adels ankünfft beid für Adelspersonē, undt allerhandt Standt, vō newem in Kupffer gestochen, durch Dieterich von Bry Leodiē.

IX, X. A year later, in 1593, Theodore de Bry issued two further editions (plate XXII), but the oblong duodecimo had now become an octavo by the addition of borders of marvellous design and ornamentation, betraying the hand of the goldsmith.

The differences in the two editions of 1593 are slight; the engravings were left untouched, but some careless spelling in the printed text was corrected and a different type used in the later edition.

In the British Museum (Bibl. Eg. 1224) is the Album of an unknown person containing all the engraved blank shields and one subject plate, No. 16 of the 1592 edition, with a few inscriptions dated at Altdorf in 1599; there are also two perfect copies of the 1593 early edition, one of them (Bibl. Eg. 1539) used as an Album by Martin Hillinger, junior, in the years 1600 to 1607, and the other (Add. 19477) by Daniel Rindfleisch, M.D., of Breslau, in 1602 to 1619.

In 1596 Johann Theodore and Johann Israel de Bry, who were associated with their father as engravers, publishers, and booksellers, issued another Album of which I have not yet seen a copy, but I understand that its second edition of 1611, which I am exhibiting (plate XXII. 2), is almost identical and differs from it in small details only, such as renumbering of plates, and the mention of the name of Johann Theodore de Bry only, without that of his brother Johann Israel, who had died in 1611; it is called:

XI. *Emblemata Secularia. Mira et jucunda varietate seculi hujus mores ita exprimentia, ut Sodalitatum Symbolis Insigniisque conscribendis et depingendis peraccommoda sint. Versibus latinis, rhythmisq. Germanicis, Gallicis, Belgicis: speciali item Declamatione de literarum studiis exornata.*

Weltliche lustige neue Kunststück, der jetzigen Weltlanff fürbildende, mit artlichen Lateinischen . . . Reimen geziert, fast dienstlich zu einem zierlichen Stamm und Wapenbüchlein. Artificiosè et eleganter in aere primò sculpta . . . per IO. THEODORUM DE BRY, CIVEM OPPENHEMI Typis IHERONYMI GALLERI, ANNO MVDVS SEVESCIT (1611).

Its engravings are not so fine as those of the 1593 Album; the subjects depicted, some a little coarse, others rather free, simply represent the culture, morals, and humour of the period, and in his preface the author avers that his reason for depicting them was not to make the godless worse, but to improve their morals by depicting things he wished them to avoid.

A third edition appeared in 1614 under the title:

Pourtraict de la Cosmographie morale, c'est à dire une centurie des plus belles inventions . . . pour presenter et corriger les moeurs. Francfort. J. Theodore de Bry. 1614.

and a fourth in 1627 by Wilhelm Fitzer of Frankfort, who after Johann Theodore de Bry's death in 1623 appears to have taken over his publishing business.

These are the most important engraved Albums; it would take me too far to describe here the large number of other books printed for the purpose in the seventeenth century. Many of them are not only poor works of art, but their text coarse and indecent; a few exceptions are:

XII. *Viridarium chymicum, d. i. Chymisches Lustgärtlein, mit Poetischen Gemälden in Kupfer gestochen, so zu einem Staunmbuch sehr dienlich . . . durch Daniel Meissner . . . Frankfurt, Lucas Jennis, 1624.*

This book has been used as an Album by Samuel Crämer, a medical student of Leutschau, and contains inscriptions of his friends at Dantzic, Königsberg, Magdeburg, Leipzig, Wittenberg, and other places in the years 1635 to 1639.

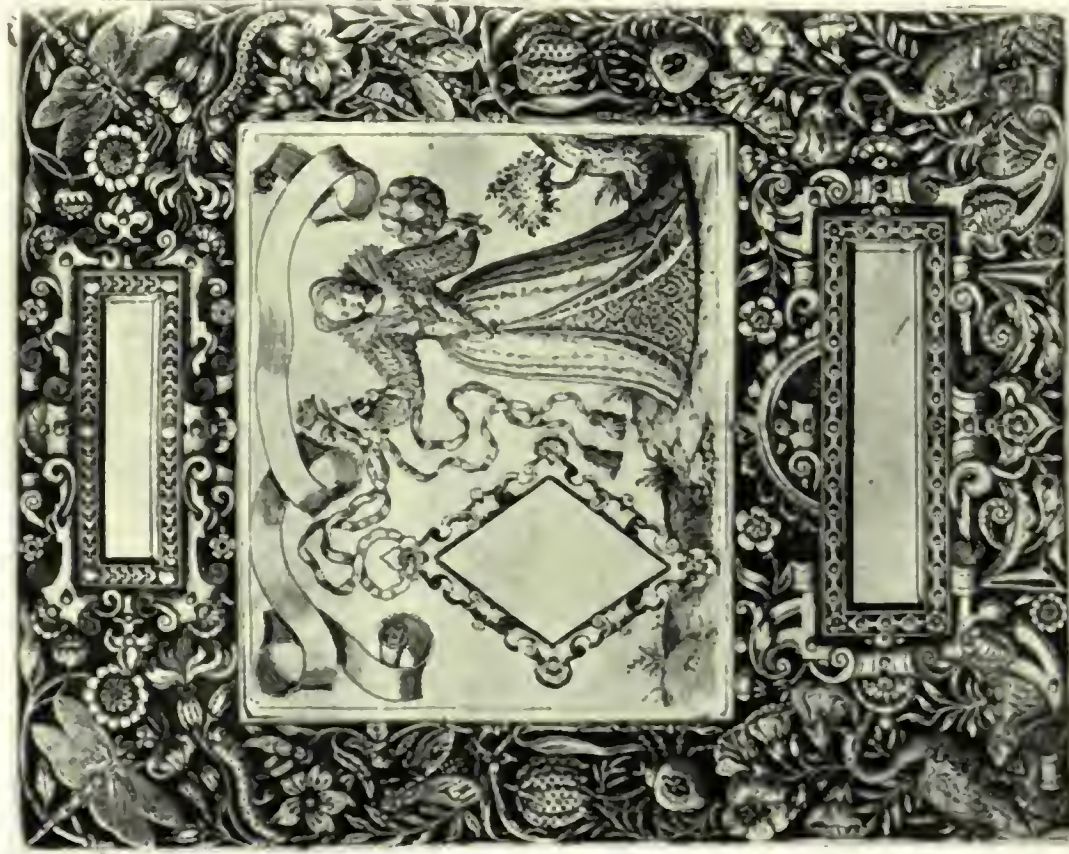
XIII. *Thesaurus Philo-Politicus hoc est: emblemata, sive moralia politica, figuris aeneis incisa ad instar Albi amicorum . . . inventione Dan. Meisneri. . .*

In eight parts with about 400 engravings by Mattheus Merian; Frankfurt am Main: Eberhart Kieser, 1624-1626.

XIV. *Thesaurus Sapientiae civilis . . . Opusculum . . . loco Albi Amicorum . . . conscriptum à Daniele Meichsuero . . . Francofurti, 1626.*

In some of the earliest Albums, the interleaved printed books, we do not find any shields of arms, but only inscriptions consisting of some motto or device, classical or scriptural quotation with a signed dedication, and sometimes the mottoes and devices were only expressed by the first letters of the words composing them. These mottoes and quotations were of infinite variety: they were Latin and Greek, classical or scriptural, Hebrew texts of the Old Testament, original compositions of a moralizing nature in poetry and prose, witty, humorous, often coarse and sometimes obscene, especially in the seventeenth century.

Although the Album Amicorum was chiefly in use amongst students at the universities, it had gradually become a fashion in wider circles: amongst the



ENGRAVINGS BY THEODORE DE BRY, 1593
 Published by the Society of Antiquaries of London, 1910


owners we find princes and nobles, high officials, ecclesiastics, and soldiers; physicians, lawyers, and teachers; painters, musicians, merchants, and artisans. A curious calling is represented by the owner of an interleaved copy of Joannes Sambucci's Emblems, who styles himself "Pest Barbier Gehülfe", that is "Assistant to a Plague Barber Surgeon".

There is also the Album of a Court and Field Trumpeter of the Elector of Mainz, where we encounter the signatures of nearly all the field trumpeters of the Holy Roman Empire.

The armorial bearings in the Album Amicorum are often beautifully drawn and illuminated, and make us desirous to know more of the artists who painted them. Keil¹ suggests that they were roving painters, travelling from court festivity to court festivity, from tournament to tournament, to paint there the arms of princes, nobles, and knights, to whom the Album, after dedication and signature had been entered, was handed to add the coat of arms.

But this again is a fanciful theory and cannot be upheld. In the fifties of the sixteenth century, the time of the earliest Albums, the tournament was a thing of the past and only occasionally revived as a pageant.

It was the custom for artists and craftsmen to travel and work abroad before becoming certified masters and members of their guilds, and some of these travelling artists may have had a share of the work, but generally speaking I must assign it to professional painters, limners, or illuminators, established in almost every important place, whose profession it was to illuminate the manifold documents of their period, official or otherwise, such as patents of nobility, grants of arms, and other privileges.

In Germany they were called *Briefmaler* and *Illuminirer*: they often were *Formschneider*, that is, wood engravers, who kept shops or stalls where they sold their illuminated woodcuts and broadsides. In Nuremberg alone, between 1550 and 1600, I can trace more than fifty of these professional illuminators, and in some Albums which I shall presently describe we find some of their monograms on the shields of arms; for instance, M. W., S. K., D. N. (probably David de Necker), H. W. (probably Hans Weigl), and G. M. (Georg Mack of Nuremberg), of whom we shall presently see in a Nuremberg Album a personal inscription with an illumination showing his shield, *per fess his housemark*  and the arms of the guild of painters, *gules three silver escutcheons*. Are not these arms of the painters' guild very significant? Nothing could show more pointedly that their original occupation was the painting of arms.

In connexion with the painting of these shields of arms I have to enter on the somewhat sordid but quite important question, who had to pay the artist? Was it the owner of the Album or his friend? I think it was the latter, and imagine

¹ *Die Deutschen Stammbücher*, R. and R. Keil, p. 6.

the *modus operandi* to have been as follows: At or after a pleasant meeting the friend, after inscribing his motto or quotation, dedication and signature, and having left a space for his arms, would hand it back to its owner with a sketch for the arms, accompanied by a certain amount of ducats, thalers, or florins, measured by his opulence and position, and in accordance with the more or less elaborate work required, requesting him to have the arms filled in as soon as opportunity allowed. As a rule this was properly carried out, but often, too often, these spaces were left blank and never filled in, although in many instances the dedication expressly mentions that in memory of everlasting friendship N. N., the friend, had had this shield of arms painted. For instance, the inscription (Album Amicorum Gros, fo. 68) "Nobili et ingenuo adolescenti Ernesto Gros, Pfersfelder Dicto in perpetuam sui memoriam haec sua insignia pingi curavit Carolus Philippus de Welder" is not accompanied by the arms.

The omission may be explained in two ways; either the friend forgot to hand over the necessary ducats, thalers, or florins, or the owner had received them and absent-mindedly spent the money in a more congenial way. I believe the one thing happened as often as the other.

Occasionally we find in the Albums portraits and shields of arms in wood-cut or copperplate engraving by Virgil Solis, Jost Amman, Tobias Stimmer, Hans Sibmacher, and other artists, illuminated or in their original state, and bearing, either in a cartouche forming part of the engraving, or on its margin, the autograph motto, dedication, and signature of the contributor. These engravings were often used by their owners as bookplates, but on the other hand some of them, described in certain *Ex libris* collections as "very rare" or "not described by Warnecke", were not engraved for that purpose and probably were made for men who never cared for the possession of a book.

Particularly amongst the rich patricians of Augsburg and Nuremberg the Album was in great favour, and if we had a catalogue of all the specimens existing, we should find that a large proportion was owned by them; and furthermore we should meet with only few Albums that did not contain the arms of either an Imhof, Haller, Kress, Holzschuher, Pömer, Welser, Ölhafen, Harsdorfer or other patricians of Nuremberg, or a Fugger, Welser, Rehlinger, Langenmantel, Ilsung, Paumgartner, or other patricians of Augsburg. The reason is not far to seek; in the first half of the sixteenth century the bankers and merchants of Augsburg and Nuremberg were the most important in the world, having establishments and factories everywhere, and accumulating enormous fortunes, especially the Fuggers and the Welsers, who often supplied the monarchs of Europe with the sinews of war, and were the Rothschilds and Morgans of their period. Is it to be wondered at, that their scions in the second

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half of the century, whilst visiting the universities and travelling over the world, should be singled out as particularly worthy subjects for the Album? In one Album at the British Museum (Bibl. Eg. 1553) there are not less than seven inscriptions with arms of different Fuggers, and there are only few of this period that do not contain the arms and inscription of either a Fugger, a Welser, an Imhoff, or a Tucher.

Autographs of King Charles I. occur in six different Albums, four of them of foreign visitors to England, the fifth that of Sir Thomas Cuming, and the sixth that of Charles Louis the Elector, and they are all accompanied by the significant motto: "Si vis omnia subicere subice te rationi." In 1609 (Sloane 3415) he signed: Ebor-Albanæ D.; in 1613 (17083) the motto and signature Carolus P. faces a painting with his portrait and the arms of England with a label, surrounded by the Garter; the entries of 1616 (15736 and Bibl. Eg. 1220) and 1618 (Bibl. Eg. 1257) bear the signatures Carolus P. and the entry of 1626 (King's 436) is signed Carolus R.

One need hardly point out that in the arrangement of the Album due respect was paid to rank and station; thus we find the entries of princely personages always at the beginning, followed in carefully considered gradations by those of counts, barons, nobles, knights, and commoners, and towards the end the autographs of people considered to be of lower rank or estate.

Having seen so many signatures of the sixteenth and seventeenth centuries, may I suggest an explanation for the origin of the flourishes attached to signatures, and which we consider either a meaningless addition or a special precaution against forgery or an attempt at ornamental decoration? I consider them the outcome of the words *manu propria* added so often and in countless varieties to the signatures, and a glance at a number of them, all with the words *manu propria* or their abbreviation twisted into different shapes and flourishes, will prove my contention (plate XXIV).

The owner of an Album did not lose interest in his book with advancing age; on the contrary, we find in many of them his personal notes showing that from afar he followed his friends' careers with keen interest. For instance, "Hic jam est Archiepiscopus Salisburgensis"; then again, when he received news of his friend's demise, he added a cross with such remarks as "Gnad Dir Gott", "Gnad ihm Gott", and sometimes he added particulars of his friend's death, like "Obiit Venetis 1601" or "Blieb vor Nördling 1634" (fell at the battle of Nördlingen 1634) (Album v. Brandt, f. 59).

I now proceed to the description of a number of Albums in illustration of what I have said.¹

¹ The references to the arms occurring in the Albums are abbreviated thus: R.=Rietstap, *Armorial General*, Gouda, 1887; S.=Sibmacher, *Neues Wappenbuch*, 1655-1667. Other abbreviations are B.M.=British Museum; R.C.=Rosenheim Collection.

No. I (B.M. Bibl. Eg. 1178). The Album of Johannes Spon (Span) of Augsburg is the earliest I have met with. It contains autograph inscriptions of his fellow students at Wittenberg in the years 1554 to 1559; one of the inscriptions on f. 6 and f. 7 is as follows:

Gut macht Mutt
Mutt macht Ubermuth
Ubermut macht Stoltz
Stoltz macht Krieg
Krieg macht Armuth
Armuth mehr thutt
Und dass macht wiederrumb Demuth
Bartholo: Thymeus, Wartenbrugsius
9 November 1554.

No. II (B.M. Bibl. Eg. 1179). A printed book, *Imagines Mortis*, Lyons, 1547, with woodcuts after Holbein, contains on its margins autograph inscriptions, dated 1555-1560, of the owner's friends. Amongst the inscriptions are the following:

f. B5 ^b .	15 - E - 55 "Ich wags Gott vollends" Ernst von Wirsberg
f. c4.	15 K 55 "Was Werden Will Wirdt Wol" Christoph Noël, Tyrol.

No. III (R.C.) The earliest book in my collection is a printed book, *Emblemata Andreae Alciati* (Lyons, 1548), interleaved for a student at the University of Ingolstadt; the first eight pages contain coloured drawings representing the arms of: I, the Papal See; II, the Holy Roman Empire; III, Albert, Duke of Bavaria; IV, Eberhard von Hirnheim, Bishop of Eichstädt and Chancellor of the University; V to VIII, the Faculties of Theology, Law, Medicine, and Arts. Then follow the signatures, mottoes or initials, and arms of the owner's fellow students, dated 1558 to 1560. An uncommon feature of this Album is that the signatures are placed within scrolls above the arms, instead of underneath, as was the ordinary practice. Amongst the entries are the following:

f. 14.	15. A. G. H. F. 59 . HK. Otto A Freyberg Arms (S. i. 83; R. i. 712)
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f. 45. Carolus and Raymundus Imhof
Arms (S. i. 206)

f. 118. Hanns Georg vō Gemmingen
E W D W

1559.

Arms: *azure two gold bars* (S. i. 122)

f. 174. Wilhelmus Comes Junior in Öting (Oettingen)
1559.

Arms: *Vairy gules and gold an escutcheon azure, over all a saltire silver* (S. i. 16: R. ii. 341).

No. IV (B.M. Bibl. Eg. 1182). A printed book: *In Evangelia quae usitato more Diebus dominicis et festis proponantur Annotationes Philippi Melanthonis, Recognitae et auctae adjectis ad finem aliquot Concinnulis. Wittebergae Ex officina Johannis Luft 1555*, to which twenty blank leaves have been added at front and back for Johann Klarner; it contains inscriptions dating from 1560 to 1607, amongst which are the following:

f. 2. Georgius Major (Professor of Theology at Wittenberg, friend of Luther and Melancthon).

f. 6. Martinus Lutherus tertius, 1560.

f. 11. Justus Jonas, 1561 (this is the son of Justus Jonas the reformer and Luther's friend; he was born at Wittenberg, 1525; became Professor of Law at the University; getting implicated in the "Grumbach" affair and outlawed he fled to Copenhagen, where, on the insistence of the Elector of Saxony, he was beheaded on the 28th June, 1567).


f. 20^b. Nicolaus Varnbulerus J. U. D. 1562 (a professor of law at Tübingen University).


f. 408. Lucas Osiander (the elder), Tübingae 1564.

f. 408. Marcus von Zinzendorff.

No. V (B.M. Bibl. Eg. 1184). One of the most interesting Albums I have seen, not only on account of its beautifully illuminated shields of arms with the monograms of the artists mentioned before, but also for the large number of inscriptions by learned men and notable Nuremberg people. It is the Album of Hieronymus Cöler of Nuremberg (plates XXV, XXVI) with inscriptions and the arms of his friends, fellow students, and learned men at Wittenberg in 1561-1562, Nuremberg and Ingolstadt 1563, Tübingen 1564-1565, Strassburg and Baden 1565, Augsburg 1566, Spire 1566-1570, Nuremberg 1571-1572, Vienna 1572-1575. Amongst the entries are the following:

f. 2^b. A coloured woodcut of St. Jerome (plate XXV. 1); at the base of the

tree between the initials G. M. with date 1571 is a shield *per fess gold and gules, in chief the housemark*  *sable and in base three escutcheons silver.* "Meinem günstig und altenbekannten Herren Jheronimus Cöler hab ich Georg Mack Illuminist Mitburger zu Nurmberg disenn Jheronimum Jn das Buch illuminiret mein im besten zu gedencken geschehen den 2 Dag October in 1571 Jar."

f. 5^b. Coloured woodcut portrait by Jacob Züberlein of Tübingen, whose monogram  is on the lower left corner. "Viva imago illustrissimi principis et domini Domini Nicolai Christophori Radziwil, Ducis Olicae et Nieswisi &c." Facing:

f. 6. 1565 Mensis Janu. 15

"Florentinus 1. 3 ff. de Justitia et Jure. Cum inter nos cognationem quandam natura constituerit, consequens est hominem homini insidiari nefas esse."

Nico: Christ: Radziwyl Dux in Olika et Nies: Comes in Schidlowiecz manu propria scribebat Tübingae.

f. 8ⁿ. Arms: *per fess flory gules and silver, in base a red rose* (S. ii. 73: R. ii. 286).

"VIVE VT VIVAS."

Wolffgangus Muntzer de Babenberg, Eques Auratus.

f. 9. Five sentences in Greek, Latin, Italian, and German.

Wolff Muntzer von Babenberg, Ritter

Jn aller Lieb unnd freundschaft

Im 1571 Jar

f. 15. Arms: *gold a right arm sable issuing from a cloud holding a frying-pan over flames, in chief a gold estoile* (R. ii. 426: S. ii. 161).

Signed with the initials of the artist: G. M. and 71 (Georg Mack, 1571).

"Mein Hoffnung zu Gott"

Anthonj Pfann 1571.

f. 15^b. Arms (S. i. 206: R. ii. 90) Mathias Löffelholtz de Colberg.

f. 16. Arms (S. i. 205: R. i. 531) Georgius Tetzell 1571.

Both signed with the initials G. M. (Georg Mack).

f. 16^b. 1563

"Lieber Son sey frumb und thu Rechtt
Das du nitt seist der Sunden Knechtt
Gott soltu stetts vor augen han
und getrew sein bey Jederman
Red wennig, hörre aber vill
Vermeÿd fürwitz, bös gsind und Spill



Hieronymus Coler
 Coler gab in ganz neue
 die Verbindung dieses
 Holzschnitts mit der
 geistigen Den. 2. Tag Oktober 1571.

1



2

Vollsattffer, und all bösse stück
 so kanstu haben gutt gelück
 Betten dir auch bevolhen sey
 Das Gott der Herr erken dabeÿ
 Das du In halttest für deinen Gott
 und er dich tröst in aller nott
 Solches als wünsch ich von Herten dir
 Wiltu weis sein, so folge mir
 Jheronimus Cöler Bürger und des
 Heilligen Römischen Reichs zu Nürmberg
 Statt Richter u. dein getrewer Vatter.
 meines Altters Im * 56 * Jar. Gott lob."

Note by the son: "Parens carissimus omnique reverentia venerandus, ex hac mortali, ad aeternam in vera fide ac filii Dei invocatione, emigravit vitam ultima Januarii Anno 1573 cum triduo ante absolverat annum sexagesimum sextum." Facing:

f. 17. Two shields accolé: I, *per fess counterchanged silver and sable in chief a demi-eagle and in base a wheel* (Cöler); II, *gules on a bend silver three red roses*, quartering Groland, Nützel and ? Schütz.

On f. 17^b and ff. are inscriptions and coats of arms of Barthol. Pömer, Wolff Pömer, Hieronymus Paumgartner, Anton Geuder, Caspar Tucher and Hans Tetzl, all of Nuremberg, dated 1563.

f. 28^b. An inscription.

Cyprianus Leovitius à Leonicia, Mathematicus
 6 May 1566. Augustae in comitiis subscripsit.

29 ff. Inscriptions dated 1563 and 1564, of Jacob Andreas, Provost and Chancellor of the University of Tübingen, Theodor Snepffius, Johann Brenlius junior, Johann Hochmann, Nicolas Varnbühler, Kilian Vogler, Samuel Hornmoldt, Valentin Voltz, Leonhard Fuchs, Johann Hyldbrand, all professors at the University of Tübingen.

ff. 65^b, 66. Inscriptions and arms: *gold on a bend sable an estoile between two gold crowns* (S. v. 217: R. ii. 593) Georg Roggenbach.

Spirae Nemetum 28 Octobris 1568.

f. 114^b. Beautifully written quotations in Greek, Latin, and German by Joh. Neudorffer junior, a celebrated writing-master at Nuremberg, with an inscription added in 1612, by his son Johann, a well-known physician, facing the shield of arms (plate XXVI. 1).

f. 115.

M . V . S . I . C . A .

"Nulla dies sine linea." M.D.LXIII.

"Festina lente."

Arms: *gold a double-headed eagle sable with a nimbus, dimidiated with sable two chevrons between three gold estoiles* (R. ii. 307) (plate XXVI. 2).

f. 155^b. Full-page arms of Hofman: *Per fess sable and gold a demilion rampant naissant to the sinister counterchanged* (R. i. 966) plate XXV. 2). On the pillars are the initials of the artist H. W. (probably Hans Weigl of Nuremberg).

Facing f. 156.

Inscription.

Hans Hofman, dein w. Schwager.

1565. M . F . I . E .

f. 158^b. Full-page shield of arms of Hess: *Sable a demi-man erased proper holding in his right hand a dagger, in his left a pair of gold callipers* (not in S. or R.). Facing this is an admonition in German verse by Mathes Hess to the owner, dated 1571, and below it a note in H. Cöler's hand: "Patronus ac Mecaenas studiorum summus, ex hac acrumnosa ad coelestem vitam evocatus. 14 Iunii, Anno 73."

No. VI (R. C.) The Album of Anton Walbott von Bassenheim is a printed book, *D. Andreae Alciati Emblemata* (Lyons, 1564), interleaved and bound for the owner whilst at the University of Louvain; it is in its original binding with A. W. A. B and date 1564 on front cover. The arms are finely drawn and of brilliant colouring. Amongst the entries are the following:

f. 23.

1565. "Noch ein Mall."

Arms (R. i. 485: S. i. 130).

Cuno Kratz von Scharpfenstein, den 13 November zu Löwen, allen zu Erhen.

f. 41.

15. S . E . A . 65.

Arms (R. i. 1118: S. i. 25).

Udalricus, Baron in Königseck et Aulendorff.

f. 52.

Arms (R. ii. 20: S. i. 108).

Georgius Christophorus Langenmantel.

f. 58.

1565.

Arms: *gold a millrind sable quartering silver three roses gules* (R. i. 899: S. i. 130).

Adolphus Hatzfeldt.

f. 72.

Arms (R. ii. 1064).

"W . D . H . W ."

Georg. Weÿss 1564 Lovanij Mens. Octob.

f. 143. "Ferendum et Sperandum."

W. W. W. W.

Arms (R. i. 1085: S. i. 187).

Georgius Ketteler.

f. 146. . 15. Æ. 66.

v. y. y. y.

Arms: *per fess counterchanged gold and gules in chief a ram's horn in base three estoiles* (R. i. 740: S. v. 90).

Johannes Guilielmus Ganzhorn, Franco.

f. 194. 15*65.

Unita virtus dissipata est fortior.

Arms (R. ii. 817 : S. i. 111).

Joannes Dieboldus à Stadion amicitiae ergò scripsit Lovanij $\overline{\text{III}}$ Aprilis.

No. VII (B.M. Add. 18973). The Album of Andreas Tucher (fig. 1) of Nuremberg, of whom Biedermann says¹: "Andreas Tucher von Simmelsdorff, after having finished his studies, went in 1572 to Paris to attend the festivities held in honour of the King of Navarre's wedding, and his life was greatly endangered owing to the so-called 'bloody wedding' then taking place," meaning the night of St. Bartholomew. The inscriptions in this Album show us the universities he visited, and his itinerary to Paris; being dated at Nuremberg, 1566-1567, Strasburg, May, 1567-July, 1568, Wittenberg, August, 1569-August, 1571, Bourges, June, July, and up to 13 August, 1572, and then Paris "in festo Bartholomaei" (24 Aug. 1572). After his escape he went home, as the next entry is dated at Nuremberg, 8th March, 1573. Amongst the inscriptions and coats of arms we find those of many Nuremberg and Augsburg people, like Lazarus Spengler, An-

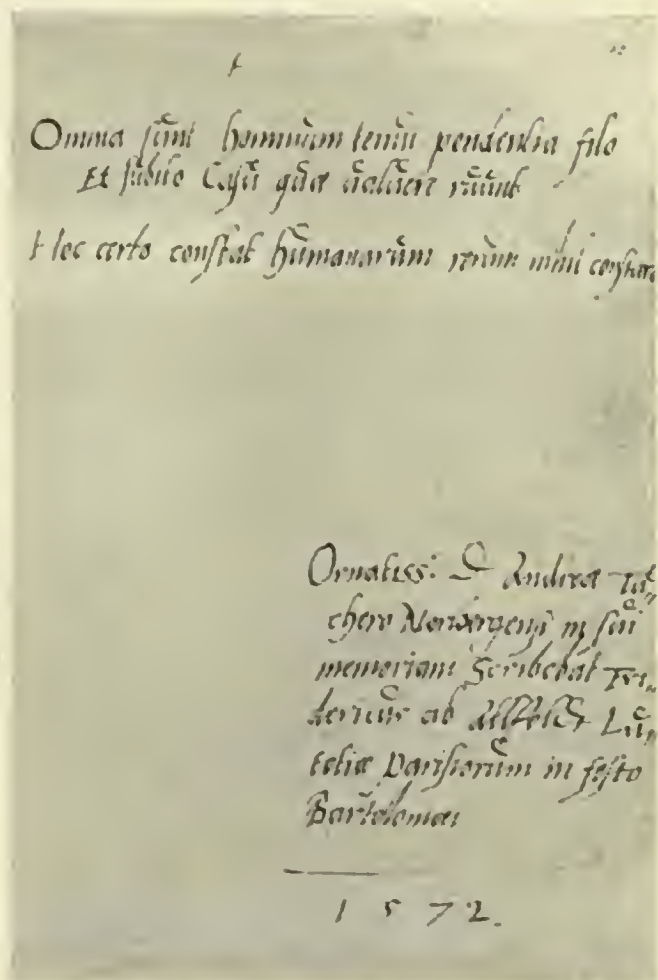


Fig. 1. Album of Andreas Tucher.

¹ Translated from Johann Gottfried Biedermann, *Geschlechtsregister des Hochadelichen Patriciats zu Nürnberg, etc.* Bayreuth. 1784.

dreas Örtel, Jeremias, Philipp and Carl Imhoff, Johan Friederich and Anton Felix Welser, Paulus Koler, Joh. Conr. Vöhlin, Gabriel Nutz, Maximilian Veit Holtzschuher and many others, but the most interesting is on

f. 63. "Omnia sunt hominum tenui pendentia filo

Et subito casu quae valere ruunt.

Hoc certo constat humanarum rerum nihil constare."

Ornatiss^o. D. Andreae Tucher^o Noribergensi in sui memoriam Scribebat

Fridericus ab Allfeldt.

Lutetiae parisiorum in festo Bartolomaei.

1572.

The inscription of Frederic von Allfeldt (Alefeld, Ahlefeld) sounds very prophetic. Did he know that something was going to happen that night?

No. VIII (R.C.) The Album of Sebastian von Stamps, Vienna, 1571-1583, is one of the most important specimens I have met with, important for its exceptional size, its interleaved sets of rare engravings some of which are illuminated, and its beautiful drawings.

It is an oblong folio, a size unusual if not unique for an Album Amicorum, and consists of sets of copperplate engravings, representing biblical and mythological subjects, by Philipp Galle, Dirk Volkaert Cornhaert, Cornelius Bos and others, after designs of Martin von Hemskerk and Francis Floris; it has been interleaved with blank sheets of drawing-paper.

On the two calligraphic title-pages, prettily ornamented in gold and colour; the owner sets forth his intention to collect in his Album or "Gselln Buech", as he calls it, the signatures, arms, crests, or housemarks of his friends, inviting them to select amongst the engravings the subjects most congenial to their tastes or callings, to get these engravings illuminated, and to insert their signatures and arms on the pages opposite.

His friends responded with a will: many of the full-page paintings, illustrating their callings, occupations, or predilections, are evidently the work of good artists; one bears the monogram M. W. and another the monogram EN (probably David de Necker); every one of them contains the arms of the signatory more or less prominently displayed.

Some of the entries are:

f. 14^b. Arms, two shields accolé: I, *per fess azure and gules, over all a silver wall with a silver tower embattled from which rise three jets of smoke* (Reuchl; not in S. or R.). II, *gules a demi-lion gold* (Obersdorffer; not in S. or R.).

Monogram EN (probably David de Necker).

Martin Reuchl, der ungeugten Kinder zu Wienn auf gemeiner Rait Camer

† ~ Suatt für Gott †



15717 Hebraeam Vuerbohrer Vos Salyvius

Superintendent. Genad Dir Gott. Elisabeth Reuchlin, eine Obersdorfferin:
Uxor. Gott Hilft.

f. 29^b. Drawing representing the siege of a fortress.

Zacharias Stainegger Röm. K. M. Diener und Zeugwart zu Wien.

f. 35^b. A Camp scene showing the provisioning of troops and tending the sick.
Jacob Nagl Röm. Kays. Mt. Profianttverwallter zu Raab. 1582.

f. 37^b. Battle against the Turks.

Arms (S. i. 38: R. i. 1012).

Hanns Jacob Hutter von Huttershofen. 1579.

f. 39^b. Drawing representing coursing the hare.

Arms: *silver a double-headed lion sable crowned and ducally gorged gold* (not in R. or S.).

Hanns Caspar von Püreckhamb. 1577.

f. 59^b. Drawing representing a vintage festival (plate XXVII).

Arms: *per fess azure and bendy azure and gold, in chief a gold estoile* (R. ii. 961: and 1 and 4 of S. iv. 189).

Abraham Underholzer von Salzburg. 1571.

f. 83^b. Herr von Cronsfeld. 1570.

Arms: *per chevron azure and gold three crowns counterchanged* (not in R. or S.).

Herr von Cronsfeld is represented full length facing a young lady, evidently his intended; by selecting a scene from the parable of the prodigal son for illumination he probably wanted to give the impression that he had sown his wild oats.

f. 86^b. Drawing representing a tournament. The trappings of the victor's horse are covered with playing cards and a figure of the prodigal son; the illuminated engraving opposite shows the return of the prodigal.

"Gott Hab Lob. 1571."

Arms: *azure a stork proper* (not in R. or S.).

Wilhallm Mair, H. Bairischer Quartiermeister zu diser Zeit.

f. 140^b. Drawing representing the enlistment of Landsknechts (plate XXVIII).

Arms: *per fess sable and barry silver and gules, in chief a crowned lion rampant holding a candlestick gold* (not in R. or S.).

Joseph Styczll, Must(er)schreib(er).

f. 161^b. Drawing representing a hunting scene.

Arms (R. ii. 377: and 1 and 4 of S. i. 214).

Mathias Paller, Augustanus, 1571.

f. 189^b. Drawing representing hawking; monogram M.W.

Arms (R. ii. 351: S. i. 55).

Christoff von Oppell, 1578.

At the end, inside the cover, is an inscription:

15 P. 79.

Abraham Strauss, Organist bei St. Stephans Khirchen in Wien.

"Tugent macht unsterblich."

No. IX (B.M. Bibl. Eg. 1189). The Album of Eberhart ab Eltershofen, which I have mentioned before, is in its original binding, and consists of blank leaves with woodcut borders probably engraved by Jacob Züberlein of Tübingen about 1570; it contains inscriptions, many with the arms, of the owner's friends, chiefly at Tübingen in the years 1571-1597, amongst which

f. 1.

1571.

"Spes mea est Christus."

Arms: *silver a chamois rampant sable crowned gold quartering gules a gold garb, over all on an escutcheon azure a gold lion rampant crowned* (R. i. 966: S. i. 22).

Johannes Adamus Hoffman L. Baro.

Tubingae, 2 Julii 1571.

f. 2.

"Initium sapientiae Domini."

Arms: *bendy of eight gules and silver* (R. ii. 460: S. i. 21).

Andreas Wolfgang Baro von Polhaim.

Tubingae 2 Julii 1571.

f. 15.

Arms (R. i. 839: S. i. 100).

Wilhelm von Grumbach.

No. X (R.C.) The Album of Johann Baptist Buchxor contains autographs and arms of the owner's friends, students, and scholars, mostly German, at Bologna in the years 1571 to 1585, some accompanied by paintings; amongst the entries are:

f. 4.

1571.

D . D . A . N .

Arms: *per fess in chief per pale silver and gules in base azure* (R. ii. 689).

Martinus à Schaumberg et Wolfgangus Christophorus fratres germani.

f. 5.

1571.

F . F . F . F .

Arms: *silver three escallops gules* (R. i. 636: S. i. 103).

Fridericus ab Eyb.



ALBUM OF SEBASTIAN VON STAMPS, VIENNA, 1523-1524

Published by the Society of Antiquaries of London, 1910

f. 7.

1571.

"Quocunq. Ratio."

Arms: *azure on a bend silver three annulets azure* (R. i. 588).

Sebastianus Echterus à Mespelbrun.

f. 9.

"Anno Dñi MDLXXI."

M. A. R. I. A.

Arms: *azure two horns erased gold quartering gules three white eggs* (S. ii. 40: S. iv. 57).Alexander Eurialus (Eyrl) Ambergensis, Comes Palatinus, et J. U. Doctor.¹

¹ As to the privileges of a "Comes Palatinus" or "Hof-Pfalzgraf" I quote here (from Dr. von Hartmann-Franzenshuld's *Deutsche Personen-Medailen des XVI. Jahrhunderts*, Wien, 1873) a document granting the title of "Comes Palatinus" to Friedrich Altstetter, a doctor juris, and setting forth the rights and privileges he is entitled to.

I. "Kann er taugliche Personen zu notaren, öffentlichen Schreibern und Richtern creiren, welche im ganzen h. römischen Reiche Befugniss haben, doch soll er sie anstatt der kaiserlichen Majestät in Gelübde und Eid nehmen."

(He may appoint suitable personages as notaries, public writers and judges, which will be recognized throughout the Holy Roman Empire, but instead of his Imperial Majesty, he himself will have to take their fealty and oath.)

II. "Hat er die Macht, Personen beiderlei Geschlechtes zu legitimiren (Fürsten, Grafen und Freiherren ausgenommen) und sie vom Mackel unehelicher Geburt zu dispensiren."

(He has powers to legitimate persons of both sexes (princes, counts, and barons excepted) and to free them by his dispensation from the ban of illegitimate birth.)

III. "Er mag Vormünder, Curatoren und Pfleger bestätigen, einsetzen und absetzen, Söhne und Töchter adoptiren ('heisst wohl Adoptionen rechtskräftig bestätigen'), Leibeigene erledigen, Minderjährige majorenn sprechen, infamirte Personen restituiren."

(He may confirm or annul the appointment of guardians, trustees, and executors, confirm the adoption of sons and daughters, he may liberate serfs, declare minors to be of age, and rehabilitate such persons as have been declared infamous.)

IV. "Er ist ferner berechtigt, Doctoren und Licentiaten aller Facultäten, der h. Schrift, der Rechte und der Arznei, auch Magister der freien Künste und Bacalaurii zu machen und ihnen 'die doctorlichen Zierden und Clainodt' zu verleihen; doch mit der Bedingung, dass der Candidat zuvor, unter Beiziehung dreier anderer Doctoren, 'notdürftiglich examinirt' worden, und sich als würdig erwiesen habe."

(He also has the privilege of granting the title of Doctor and Licentiate of all Faculties, Theology, Law, and Medicine, also that of Master and Bachelor of Arts and granting to them the insignia and crests of Doctors, but with the proviso that they should pass before him and three other Doctors "a superficial examination", and prove themselves worthy of the honour.)

V. "Hat er das Recht, ehrlichen, redlichen Leuten, welche er dessen werth erachtet ('welches wir dann seinem gefallen und beschaidenheit heimbgestellt haben wollen'), erbliche Wappen zu verleihen, und sie somit zu Wappens- und Leihensgenossen zu machen. Doch darf er nicht verleihen: den kaiserlichen und königlichen Adler; nicht die Wappen anderer Fürsten, Grafen und Freiherren; auch nicht irgend eine königliche Krone auf dem Helm, was sich der Kaiser vorbehält."

(He has the right to grant hereditary arms to honest, straightforward persons whom he considers worthy of that honour ("which we leave to his judgement and tact"), and thus to make them companions in coat-armour, but he has no privilege to grant to them the Imperial or Royal Eagle, the arms of other princes, counts, and barons, nor a Royal crown under their crest, a right the Emperor reserves to himself.)

f. 29.

15. "Cadat alea fati" 71.

"Quello chi vuol il Ciel convien chi sia."

Arms (Sibmacher, *Bürg. Wapenbuch IV.* 59 T. 68).

Wolphgangus Hunger. D. Bononiae, 18 Junii.

f. 34.

1572.

In Gloria.

Arms: *sable three crosses paty silver* (R. ii. 724, wrongly as Schönburg, S. i. 122).

Georgius à Schonenburg, Decanus Metropolitanæ Moguntinae.

f. 40.

CIC IC+LXXII.

W.

Arms: quarterly, 1st and 4th, *per pale gold and azure two fleurs-de-lis counter-changed* (Fugger). 2nd, *a woman in full front mantled sable crowned gold supporting in her right hand a mitre gules garnished gold* (Kirchberg). 3rd, *gules three hunting horns silver stringed and garnished gold* (Weissenhorn) (R. i. 724: S. iii. 27).

Maximilianus Fuggerus.

f. 59.

15+73. G. G. G.

"Zeitt und Weil ist ungleich."

Arms (R. i. 854: S. i. 25).

Albrecht Herr zu Gumpenberg, Freyherr.

f. 64.

1577.

Arms: *gold three leopards sable* (S. i. 19).

Christoff des heil. Röm. Reichs Erbtruchsess freyherr zu Waldtpurgh zu fl. Dt. Ertzhertzog Ferdinand zu Osterreich Rhatt und Camerer.

No. XI (R.C.) Fifteen leaves, inlaid and bound, of the Albums of Bartholomeus and Johannes Welser of Augsburg, containing the autographs and arms of the owner's friends and fellow students at Augsburg, Laugingen, Tübingen, Bourges, and Paris in the years 1574 to 1580. Amongst the entries are:

f. 2.

"Sors omnia versat."

Arms: *silver on a mount a trefoil slipped sable* (R. ii. 303: S. i. 209) (Neidhart).

Matthaeus Daniel Nithard Aug:(ustanus) Die 3 Augusti Anno CIC IC XVIIIC.

f. 3.

1575.

"In Deo solo fiducia mea."

"Spes mea est Christus."

Arms: *per pale silver and gules a fleur-de-lis counterchanged* (R. ii. 1067: S. i. 207).

Melchior Welser, Tübingae 6 Aug.

f. 7.

V. V. V. L.

Arms: *per bend sinister gold and sable a stag rampant counterchanged* (R.ii.901 : S. i. 217).

Marcus Thenn, . . . Anno 1577.

No. XII (B.M. Bibl. Eg. 1194). The Album of Johann von Thau, sometime "Bürgermeister" of Vienna, consists of two printed books with woodcut illustrations by Virgil Solis, namely: *Biblische figuren des alten Testaments ganz kunstlich gerissen Durch den weltbrümpften Virgilium Solis, Maler und Kunststecher zu Nürnberg, 1565. Gedruckt zu Franckfurt am Mayn durch Johannem Wolffium* (2 vols.) and *Johan Posthii Germershemii Tetrasticha in Ovidii Metam (orpho-seon) Lib. XV quibus accesserunt Vergilii Solis figurae elegantes et iam primum in lucem editae: Schöne figuren, etc., MDLXIX*. He had them interleaved and bound, his arms being impressed on the outside cover. This Album contains inscriptions and beautifully painted shields of arms, some accompanied by full-length portraits, and amongst its contributors we meet abbots and other ecclesiastical dignitaries, judges and officials, soldiers and patricians, principally of Vienna, in the years 1578-1598. At a later period leaves from another Album have been inserted into the second book, but they do not concern us here.

On f. 10 is a coloured woodcut with the arms of Johann von Thau: *silver three estoiles gules impaling sable a gold griffin quartering per fess gold and sable a phoenix on a pyre in flames counterchanged*.

Thau's arms are not mentioned by Sibmacher or Rietstap; the arms blazoned on the 1st and 4th quarters are recorded on a struck medal (Bergmann, ii. 212, plate xx, no. 101), which must have been made after 23rd January, 1562, when he received the title of Imperial Councillor, and before 25th July, 1564, the date of death of Ferdinand I; but there is no record for the 2nd and 3rd quarters, which, very curiously, represent the arms of Georg Prantstetter, several times "Bürgermeister" of Vienna, who died without leaving issue on the 6th May, 1574. Neither Thau nor his first or second wife were related to Prantstetter, and it must be left to further research to ascertain if, and how, he obtained that augmentation.

Johann von Thau was a judge of the city of Vienna ("Stadtrichter") in 1562-1564, then "Bürgermeister" in the years 1570, 1571, 1575, 1578, 1579, 1582, 1583, and last in 1588 and 1589.

Amongst the entries are the following:

f. 14^b. Full-page painting (plate XXIX. 1) with the arms of the monastery of Heiligenkreuz: *gold on a cross gules a right hand in benediction vert* (S. Klöster,

p. 28) quartering Molitor: *gules three silver poplar leaves terminating in crosslets in bend.*

"Udalricus Tricesimus quartus Abbas Monasterii Sanctae Crucis in Austria."
(Ulrich II. Molitor was Abbot of Heiligenkreuz from 1558 to 1585.)

f. 23. Full-page painting (plate XXIX. 2) of the arms of the monastery of Lilienfeld and of its abbot Lorenz II. Reiss. Under mitre and crozier two shields accolé:

1. *azure three gold fleurs-de-lis in pale* (monastery of Lilienfeld). S. *Klöster*, p. 59, blazons *azure three silver fleurs-de-lis 2 and 1.*

2. *azure on a mount silver a crowned lion rampant gold holding a sceptre* (which is Reiss, not mentioned in S. or R.).

"Laurentius Abbas Monasterii Campililiorum in Austria Ordinis Cisterciensium MDXCIII. 6. febr."

(Lorenz II. Reiss was Abbot of Lilienfeld from 1587 to 1601.)

f. 58. Full-page painting (plate XXX. 1).

Arms: *gules a hat azure turned-up ermine* (R. i. 1002: S. i. 38).

Christoff Hütstockher, 1579.

f. 77. A full-page painting of the arms of the Scots Monastery at Vienna and of its abbot, two shields accolé:

1. *azure on a mount vert a book with its cover hanging from it gules garnished gold, over all a golden crozier in bend* (Scots Monastery).

2. *azure a gold fleur-de-lis between two stags' horns sable* (Schretel).

"Joan. Abt zu Schotten, Rom. Ky Mait Radt, Anno 1581."

(Johann IX. Schretel was abbot from 1562 to 1583.)

The monastery of Our Lady, called the Scots Monastery, was founded in 1158 by Henry, Duke of Austria, for Celtic monks of the order of St. Benedict, and up to 1418 only Scottish, Irish, and Welsh monks were admitted to it; owing to some difference as to the admission of other nationalities, they retired in 1418 to the Scots Monastery at Ratisbon. The present arms of the monastery, granted in 1700 by Leopold I, differ from those shown here, being: *azure on a mount vert a gold crozier in pale, over all a book gules garnished gold* (S. *Klöster*, p. 90, T. 101).

f. 118^b. Full-page painting (plate XXX. 2) with portrait.

"15 - Gott Verthraue ich - 86."

Arms: *per fess gold and sable an eagle counterchanged quartering gules a fess silver, over the fess in chief a demi-stag issuant proper* (R. ii. 1059: S. iii. 67).

"Georg Ludwig Wehe."

den 8 Tag Januarii Anno 86.



1



2

ALBUM OF JOHANN VON THAU. 1578-1598
Published by the Society of Antiquaries of London, 1910

No. XIII (B.M. Add. 17813). The Album of Emeran Lerchenfelder, of Ratisbon, contains inscriptions, some with miniatures, others with the arms of his relatives, friends, and fellow students at Ratisbon, Amberg, Jena, Brunswick, and other places in the years 1579-1623. The miniatures and arms executed at Brunswick are rather poor.

On the front page is the inscription, "Genealogiae seu Amicitiae liber Emerani Lerchenfelder Ratisbonensis": and on

f. 8^b, the early arms of Haymeran (Emeran) Lerchenfelder: *gules on a silver chevron a lark rising proper*.

f. 9. The augmented arms quarterly 1 and 4: *gules on a silver chevron a lark rising proper*. 2 and 3: *silver a lion rampant crowned gold* (S. v. 225 and R. ii. 53, blazon 2 and 3: *silver a lion rampant gold*).

f. 11. 16-07 H. A. D. T. I.
"Vertu surpasse Richesse."
Ludtwig Landgrave zu Hessen.

16-07.
V. T. D. M. D. "En Dieu mon esperance."
Philippe Landgrave d'Hessen.

f. 13. An engraved portrait.
Mauritius Comes d'Nassau. Ao 1595.

f. 15. Arms of Juliers and Cleve.
Joannes Dei Gracia Dux Juliae, Cliviae et Montium Comes Marchiae, etc.

f. 16. Arms of Juliers and Cleve.
1595.
"En Dieu me fie."
Sibille duchesse de Juliers, etc.

f. 21^b. "Vel Tandem Terminus esto."
Arms granted 1557 (R. i. 712).
Joh. Wolf Freymond zu Mulfeldt und Hersching.

f. 22. Engraved portrait: Joan Wolf FREYMAN in Randeck, etc., MDXCVI.
aet. L.

f. 23. Engraved arms; augmentation granted 24 Aug. 1596 (R. i. 712).
IOHAN WOLF FREYMAN VON VD AUF HOCHEN RANDECK . . . UND REICHS HOF:
VICE: CAZELER. AN. 1596.

f. 27^b. Arms: *gold a bend gules quartering chequy gules and silver* (Baden), *on a chief gules a silver Maltese cross*.

Underneath are three smaller shields of arms of his officials, Tschernin, Riedesel, and Ungemach.

- f. 28. "Alles verthan vor meinen endt
Macht mir ein richtiges testament."
Johann Carel Margraff zu Baden,
ritter zu Malta.

(This man, b. 1572, fell in the wars of the Netherlands in 1599.)

No. XIV (B.M. Bibl. Eg. 1198). The Album of Joannes Molitor of Nuremberg contains inscriptions, some with shields of arms, of his fellow students and professors at Altdorf in 1581-1583 and 1590, Heidelberg 1586-1588, and at Ingolstadt in 1591. Amongst them are:

- f. 49^b and 50. Woodcuts: "Insignia Melissi" by Tobias Stimmer.
f. 51^b. Woodcut portrait by Tobias Stimmer (plate XXXI. 1).
"Effigies Pauli Melissi Franci P(oetae) L(aureati) An. Aeta. xxx.
"P. Melissus, Comes Palats. Eq., civis Rom. scribt. Kalendis Quinctilib.
Ao. MDLXXXI. Noribergae."

(Paul Sched, called Melissus, born 1539 at Melrichstadt in Franconia (the son of Balthasar Sched and Ottilia Melissa), studied at Erfurt and Jena, was ennobled and appointed Poet Laureate at Vienna, and later at Padua, Comes palatinus, Eques Auratus, and Civis romanus. He also travelled in England, and on his return received the appointment of librarian at Heidelberg, where he died in 1602.)

- f. 61. Arms (R. i. 768). Andreas Geuder ab Herolzberg, Altdorf 3 Aug. 1583.

- f. 62. "Non est Mortale quod Opto."
Jacobus le Seigneur, Gallus.
17 Martii 1591. Ingolstadii.

- f. 68. Arms (R. ii. 571). Philippus Rieter von Kornburg.
Altdorfii Noric: 4 Martii 1586.

- f. 70^b. "Avec le temps et ma peine."
Heinricus Bachhoffen Echt.
Altdorphii Norico, 2 Sept. 1590.

No. XV (B.M. Bibl. Eg. 1199). The Album of Sebastian Záh of Augsburg, in its original binding, with the initials S. Z. A. and dated 1587, contains inscriptions, some with shields of arms and paintings, of his friends and fellow students at Augsburg, Pisa, Florence, Rome, Prague, and other places in the years 1581 to 1600.

He was probably a son of the Sebastian Záh who on 23rd July, 1560, married Susanna, daughter of Ottmar Schlecht and widow of Lienhart Eggelhof, and



1



2

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who obtained the nobility of the empire with an augmentation of his coat armour on the 27th April, 1581. Amongst the inscriptions are the following:

f. 5. "Hubertinus Albitius Patricius florentinus . . . manu propria scripsit. Pisis. calendis februarii 1592."

f. 5^b.

"Ars natura supplet."

Arms (not in R. or S.).

"Joh. Pietro Francavilla scultoro belgis . . . in Fiorenza questo dio xxix di Ottobre 1592."

(This Joh. Pietro Francavilla, born 1548 at Cambray, was, according to Nagler, a pupil of Giovanni da Bologna.)

f. 6 (fig. 2).

"Monsgr Sebastiani Zeck.

Pour la longa amities q. je auous eulx ensamble, moi Jehan bolongna fia-

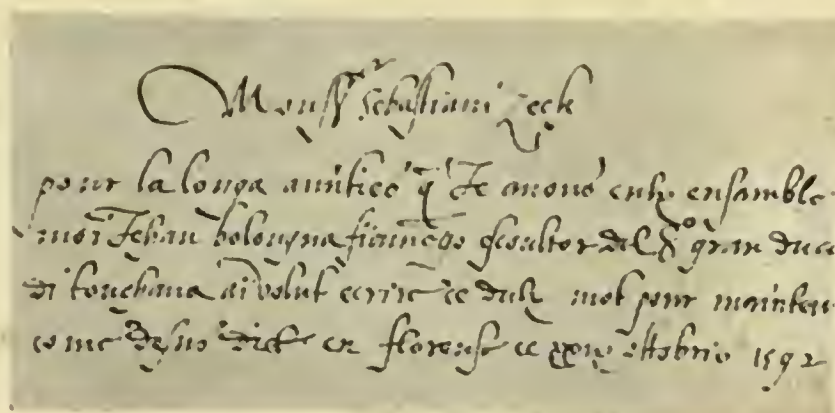


Fig. 2. Album of Sebastian Záh.

mêgo escoultor del S^e gran Duca di Touchana ai volut ecrire ce dulx mot pour maintenir es me desno. Dict en Florense ce xxix octobris 1592."

Although this is neither good French nor Italian, it is probably the most noteworthy inscription of the whole book.

f. 10.

"Die Welt ist ein Gaggelsack."

Arms: *per fess silver and gules three roses counterchanged* (not in R. or S.).

"Veitt Conratt Schwartz den letsten October ão 1581 zu Ehren seines lieben Veters Sebastian Zähen des jüngern dises hieherr gestellt hatt."

f. 11. A miniature.

Josias Seuter Augustanus.

f. 12 and ff. The arms and inscriptions of Augsburgers, viz. Johann Ulrich Bechler, Christoph Amann, Simon Fabricius, Johann Christoph Hörmann, Paulus Manlich, Balthasar Ligsaltz, Abraham Mannlich, Tobias Wind, and Johann Christoph Jenisch.

f. 34. "Audentes Deus ipse iuuat."

Petrus Kohary, Capitaneus Equitum et peditum quondam Illustri Dni. Nicolai Palffy. 12 Dec. 1600.

f. 35. A beautiful miniature; by its side the arms: *azure a fess between three gold estoiles.*

Marcus Bechlerus, Augustanus.
2 Martii. Ao. 87.

No. XVI (B.M. Bibl. Eg. 1553). The Album of Caspar Fraisch, "Küchenmeister," "Haus und Küchenmeister," of the Princes Maximilian, Philip, and Ferdinand of Bavaria (sons of Wilhelm V, Duke of Bavaria), contains inscriptions of princes, nobles, and others, some with shields of arms and miniatures, at Ingolstadt in the years 1588 to 1612. Amongst the entries are the following:

f. 1. "15 – Corona Legitime Certantibus. – 90."

Arms of Austria.

Ferdinandus Archid. Austriae.

(Ferdinand, Archduke of Austria, b. 1578, became King of Bohemia 1617, of Hungary 1618, Emperor, as Ferdinand II, 1619, †1637.)

f. 2. 15 † 95.
"OMNIA."

"Ernestus Elector Coloniensis, Bavariae Dux."

(Ernest son of Albert V, Duke of Bavaria, b. 1554, became Bishop of Freysing 1565, Hildesheim 1573, Liège 1581, Archbishop of Cologne 1583, †1612.)

f. 3. 1595.
"R . M . H . N . D . W ."

Fridericus Elector Palatinus etc.

(Frederick IV, b. 1574, Elector 1583, †1610.)

f. 4. 15 – Dominus Virtutum nobileum – 88
Arms of Bavaria.

Maximilianus Bavariae Princeps.

(Maximilian, b. 1573, became Duke of Bavaria 1597 and Elector 1623, †1651.)

f. 8. Arms: quarterly: 1st and 4th *gules a bend silver* (Bishopric of Ratisbon), 2nd Palatinate, 3rd Bavaria.

Phil. Eps. Ratisbonen. Ingolstadii.

(Philipp, b. 1576, became Bishop of Ratisbon 1579, Cardinal 1597, †1598.)

f. 9. 1590.

Arms: Palatinate quartering Bavaria.

Ferdinandus Com. Palat. Rheni Bavariae Dux.

(Ferdinand, b. 1577, became Bishop of Liège, Münster, and Hildesheim, and Archbishop of Cologne 1612, Bishop of Paderborn 1619, †1650.)

f. 11. "Carolus Card^{ali} a Lotharingia, Episcopus Argentinensis et Metensis."
(Charles, son of Charles II, Duke of Lorraine, became Cardinal in 1588,
†1607.)

f. 17. "Noctes enumeravi mihi laboriosas."

Julius Eps. Wirceb.

(Julius Echter von Mespelbrunn became Bishop of Würzburg in 1573, †1617.)

f. 18. "Sana & Sanabor."

Arms: *gules an eagle silver quartering gules two bars wavy silver.*

Joannes Eps Tergestin.

(Joannes (VIII) Bogorinus became Bishop of Trieste 1595, †1597.)

f. 19. Arms: *silver a cross paty sable* (Teutonic Order) quartering *gules an ibex rampant proper* (Bobenhausen), *over all on a cross paty sable another flory gold; on a gold inescutcheon an eagle sable* (Master of the Teutonic Order) (S. v. 29).

Heinricus Dei gratia Administrator magni Magistratus Borussiae et Ordinis Theutonici per Germaniam Italiamq. Magister.

(Heinrich (V) von Bobenhausen became Grand-master of the Teutonic Order in 1572, resigned in 1590, †1595.)

f. 30. Arms of Fugger, Christophorus Fugger, 1588.

f. 31. " " Jacobus Fugger, 1589.

f. 32. " " Constantinus Fugger.

f. 32^b. " " (Georgius?) Fugger, 1595.

f. 46. " " Joannes et Hieronymus Fugger, frès germani, 1594.

f. 47. " " Wilhelmus Fugger, 1597.

f. 48. " " Christoph, Franciscus und Ferdinand Fugger
Gebrüder, 1597.

f. 73. 1595. S. D. W.

Arms: *azure two gold arrows in saltire between two silver estoiles one in chief one in base.*

Gregori Orainski Deuffl des Herzog in Beirn Zwerg.

f. 115. 1594.

Unverhofft kombt off.

Arms: *gules a boar rampant sable* (not in R. or S.).

Meinem gunstigen unnd vertrauten lieben Herrn Bruder Casparn Fraiss-leben (*sic*) Ir. F. D. Dreyer jungen Fürsten Inn Bayern etc. Hauss und Küchenmeister Hab ich Benedict Schweindl Hochgedachter der Zwayen Geistlichen Fürsten Camerdiener zur guetter Gedechnuss geschrieben in Jngolstadt den 16 November.

No. XVII (B.M. Add. 19065). The Album of Timann Cock of Bremen contains inscriptions of the owner's friends and fellow students and of learned men at Bremen, Leyden, Helmstadt, the Hague, and other places in 1589 to 1595. On f. 2 is the owner's inscription:

"Thesaurus amicorum
Timaenni Cocci Bremensis."

Mense Aug. Ao. 1589.

And the following are of particular interest:

f. 15. En Tabulis inscribo tuis, ANTE OMNIA MUSAE
Sollene id Dousae SYMBOLON esse scias.
Tu fidei haec cape signa meae: nam quid pedis ultra
Sum quidcumq. tuū est: caetera nec mea sunt.
J. Dousa scribebam.

Hagae-comitis A MDXCIII Cal. Sextil.

(J. Dousa, born 1545, studied at Louvain, Douay, and Paris; William of Orange made him Governor of Leyden, which town he defended against the Spaniards. He was appointed Keeper of the Archives of the States-General, chief librarian of Leyden, 1591, elected to the States-General, and died in 1604.)

f. 15^b. An inscription.

Janus Dousa filius.

(Born 1572, poet, philosopher, mathematician; he was appointed in 1591 librarian at Leyden, †1597.)

f. 43. "Nihil utile quod non honestum."
"Veras igitur stabilesq. acquirere divitias,
animi vere generosi opus putato."
Joannes Dee, Anglus.

Bremae 14 novebr. Ao. 1589.

No. XVIII (R.C.). Twenty leaves, mostly vellum, of the Album of Heinrich Pilgram of Nuremberg, containing miniatures and inscriptions with the arms of his friends at Nuremberg and Vienna in the years 1589 to 1596. Both miniatures and arms are very finely painted. Among them are the following:

"Gloria Virtutis Premium."

Arms: *per fess sable and gold over all a mermaid proper crowned and vested gules quartering per pale gules and gold a fleur-de-lis counterchanged over all on an escutcheon silver a bull's head proper* (R. ii. 571: S. i. 205).

Carl Rietter von Kornburg.

Wien, den 24 februar 1590.

Miniature representing full-length figures of a lady and of a man holding a gun; signed with a monogram **A**, probably that of Jost Amman.

No. XIX (R.C.). 110 leaves of finely executed miniatures which at one time formed the Album Amicorum of a soldier of some standing, who got his comrades in arms at the siege of Gran to enter their mottoes, arms, and names on the back of some of his miniatures. These entries are all dated August and September, 1595: "Im Feldlager vor Gran," "Zu Gran im Feldlager," "Vor Gran," "Zu Gran," "Unter Gran."

Gran on the Danube, a fortress in Hungary, was conquered by the Turks in 1543 under Soliman II; in 1574 the imperial forces under the Archduke Matthias tried to retake it, but failed. In 1595 Charles, Prince of Mansfeld, again laid siege to it, and defeated the Turks who had come to its succour. Mansfeld died on the 14th August, 1595, but the Archduke Matthias continued the siege and forced the Turks to surrender the town in the same year.

Some of the owner's friends, who entered their names, were:

Johann von Althan.

Gotthard von Starhemberg.

Ludwig von Starhemberg.

Paul Jacob von Starhemberg.

Hans David Harsdorffer and Dietrich Schiffler "Landtsknecht Fendrich".

Nicholaus Hochhauser von Hochhausen with the motto: "Allen die mich kennen, den geb Gott, was sie mir gönnen."

Christoph Hochhauser von Hochhausen with the motto: "Wer für mir redet Guttes und hinter mir Arges, so kom der Teufel und brech ihm den Hals."

Sigmundt von Zedlitz with the motto: "Ach Gott lass mich erwerben, Gar Ehrlich Leben und schlig sterben." This last entry is on the reverse of a miniature with the inscription "Reina di Angletterre", but it bears very little resemblance to Queen Elizabeth.

These miniatures are very interesting, representing English, French, and Italian personages, high dignitaries of the church and law, soldiers, ladies of high and low estate, amongst the latter a "Ruffiana" or procuress; then there are representations of different occupations, modes of travelling, the Venetian Buc-centaur, galleys and gondolas, etc.

No. XX (R.C.). The Album of Johann Gastel of Augsburg, a student, then a Doctor of Medicine, with inscriptions, miniatures, and arms of his friends and fellow students at Augsburg, Dillingen, Venice, Padua, Florence, Rome, and Salzburg in the years 1595 to 1615. The miniatures represent dignitaries of Venice and of the University of Padua, portraits, and allegorical subjects. Some of the entries are:

f. 3.

"16- Dabit Deus his quoque finem -06."

Arms (R. i. 961: S. i. 214).

Philipp' Hochstetter, Augustanus.

f. 6. "15- Vive memor socii quem tibi iunxit amor. -99."

Arms (R. ii. 1113: S. i. 26).

Adamus Baro à Wolckenstain. 22 Martii Anno 99.

f. 41. "Tout vient à point qui peut attendre."

Arms (R. i. 724: S. i. 19).

Severinus et Joan: Jacobus Fuggeri Barones in Kirchberg et Weissenhorn
amicitiae ergo haec pingi curarunt Domine Gastellio. Die 17 Januarii 1606.

f. 62^b. "Amor oia Vincit."

Miniature; a knight holding a shield with arms: *gold three wolves' snares inverted sable in pale* (R. ii. 820: S. i. 111).

Jo. Conradus à Stain. Anno 1598 30 Maii.

f. 69^b. "15- Virtute nihil praestantius. -99."

Miniature; a knight on horseback holding shield with arms: *silver a fess gules between two leopards azure* (R. ii. 695: S. i. 115).

Johannes Rudolphus Schenck von Stauffenberg.

f. 81^b. Miniature portrait: "Vera effigies Melchioris v. Stein aetatis suae
13. die Februarii 26 Ano. 97."

f. 82. "Spes mea Christus" 1597.

Arms (R. ii. 820: S. i. 111).

Melchior v. Stein haec sua insignia amoris ergo pingi curavit.

f. 107^b. Miniature: a knight on horseback holding a flag with the arms of
Brahe (R. i. 282); the same on the horse's trappings.

f. 108. 16- "Mas honra que vide." -01.

Arms: *sable a pale silver* (R. i. 282).

Otto Brahe A. F. Danus J. V. A. J. Cons.

Padua 23 Junii.

No. XXI (B.M. Bibl. Eg. 1220). There are only a few arms in the Album of
Johannes Opsimathes of Moravia, but many interesting inscriptions of royal
and princely persons, English prelates and statesmen, of professors and other
learned men, collected at Paris, London, Geneva, Leyden, Marburg, Altdorf,
Wittenberg, and other places in the years 1598-1620.

Amongst the signatories are:

f. 1. 1616.

"Si vis omnia subicere subice te rationi."

Carolus P.

f. 2. 1607.

"r. v. r. d. b. m."

Friedrich Pfaltzgrave.

(Afterwards the Elector, who married in 1613 the Princess Elisabeth and in 1619 was elected King of Bohemia.)

f. 6. "Theatrum pietatis conscientia."

Jacobus (Montague) Bathoniensis et Wellensis (Episcopus).

R. Lincoln(iensis) (Richard Neile, Bishop of Lincoln).

f. 21. Paulus Merula (the great jurist and Professor of History at Leyden, also librarian of that university; born at Dortrecht 1558, died at Rostock in 1607).

f. 30. Theodorus Beza, Geneva 1601 die Januarii 7.

(The well-known writer and Calvinist preacher at Geneva who wrote the history of the reformed church in France from 1521 to 1563, the *Life of Calvin*, and many other books; he died in 1605.)

f. 43. "Virtute et Genio."

Carolus Clusius Atrebas.

Lugduni in Batavis. iv Idus Maius 1600.

(Carolus Clusius (Charles de l'Ecluse), born at Arras 1526, a botanist and well-known writer on the subject, was appointed by Maximilian II. and Rudolph II. Director of the Imperial Gardens, lived from 1587-1593 at Frankfort on-the-Main, then became Professor of Botany at Leyden, where he died in 1609.)

f. 52. Stephanus Lesurius, Eques Auratus.

(Sir Stephen Lessieur, English ambassador to the emperor.)

f. 68. Henricus Monantholus Medicus et Mathematicarum Professor Regius.

Lutetiae. 24. Julii, Anno 1600.

"Coelo restat iter, coelo tentabimus ire."

(Henry Monantholus (Monantheuil), b. at Rheims in 1536, became Professor of Medicine and of Mathematics at Paris, then Dean of the Medical Faculty; his publications on mathematical and other subjects are numerous. †1606.)

f. 80. Johannes Deodatus (Diodati, b. at Lucca, 1576, became Professor of Theology and pastor of the French and Italian churches at Geneva; published an Italian translation of the Bible and the first French translation of the History of the Council of Trent, etc.; †1649).

f. 101. 1616.

"Hic nihil omni ex parte beatum."

Thomas Moravius Scot(us).

Sereniss. Principis, regis Angliae filii praefectus.

Londini in Anglia, Julii 17.

No. XXII (R.C.). A collection of 63 leaves with woodcut borders, which formed the Album of Philipp von Brandt, and contain the inscriptions, some with

the arms of his friends, who were ecclesiastics, officials, and soldiers at Tübingen, Neuberg on the Danube, Sulzbach, Coblenz, and Ratisbon in the years 1600-1630. Some of the entries are:

- f. 1. 1600.
 "Tendit ad ardua Virtus."—"Ich schweige und gedencke."
 Arms (R. ii. 1051: S. i. 32).
 Joannes Georgius Liber Baro à Wartenberg . . . Tübingae 22 April:
- f. 9. 1601.
 "W . G . W . W ." (Wills Gott Wer Wends.)
 Arms (R. ii. 101: S. i. 112).
 Caspar Schilling von Cannstadt . . . Neuburg a. d. Donau.
- f. 13. 1601.
 "Gott Trau, uff Niemandt Bau."
 Arms (R. ii. 275: S. i. 206).
 K. H. Muffl NE. F. Pfalzgr: Hoffmeister zu friedrichsburghk.
- f. 59. den 12 Decembris A° 1630.
 "Ein frischer und ein frölicher Muth
 ist besser den viel Geldt unnd Gutt."
 Friederich von und zum Egloffstein.
Note in the owner's hand: Gnadt Im Gott
 blieb vor Nördling
 A° 1634.

No. XXIII (R.C.). Ernst Gross von Trockau, called Pfersfelder, the owner of this Album, who became at an early age Canon of Bamberg in 1590 and of Würzburg in 1611, died at Würzburg in 1628. His Album, interleaved with some engravings, contains autograph inscriptions and the arms of his fellow students at Würzburg in the years 1602-1604, at Orleans 1604-1606, and of some of his fellow canons and other high ecclesiastical dignitaries at Bamberg and Würzburg in the years 1602 to 1626. Amongst the entries are:

- f. 2. 1604.
 "Domine nolo vivere, nisi tecum moriar."
 Arms: under an imperial crown two shields accolé.
1. *Gold a lion rampant to the sinister sable debruised by a bend sinister silver* (Bishopric of Bamberg). 2. *Gules a goat's head couped silver* (Gebaßattel).
 (The imperial crown alludes to the founder of the bishopric, the Emperor Henry II.)
- Joan: Philip: Eps. Bamberg.
 (Johann Philipp von Gebaßattel became Prince Bishop of Bamberg 4th February, 1599, and died in 1609.)

f. 3. "16. Dominus Providebit. 11."

Arms (R. i. 1126: S. i. 101).

Hector à Kotzau Cathedralis Ecc̃ae Bambergensis Decanus nec non Herbipolensis Canonicus, Praepositus ad S. Jacobum prope Bambergam, Sanctissimi Domini nostri Pauli Quinti conciliarius et prothonotarius Apostolicus.

f. 4. 1612.

Arms (R. ii. 863: S. i. 103).

Joh. X̃phorus Neustetter dictus Sturmer Praepositus Bambergensis et Custos Moguntini.

f. 5. "Les choses plus difficiles, deviennēt fort faciles, en travaillant."

Arms (R. ii. 533: S. i. 110).

Hanns Michael und Albrecht Ernest von Rechberg von Hohen Rechberg, Gebrueder.

In Orleans den 31 May A°. 1605.

f. 17. "Ante opus considera."

Arms (R. ii. 773: S. i. 104).

Theodorus à Gich. Ann. 1612.

f. 21. "Dulcia non meminit q. non gustavit amara."

Arms (R. ii. 536: S. i. 113).

Wolf Hendrich von Redwitz, Dombherr.

f. 29. "In necessitate, verus probatus amicus."

An engraving, probably by Johann Sibmacher, with the arms of Kolowrat-Krakowski (R. i. 1116).

Wladislaus Abdon Bezdrutzki a Kolowrat, Baro Bohemus A°. 1608. 26 Septemb:

f. 80. "Pulchra est concordia cordis et oris."

Arms (R. i. 599: S. i. 103).

Philippus Adolphus ab Ernberg 16 Junii A°. 1605. Aureliis.

(This man became Prince Bishop of Würzburg in 1623. †1631).

No. XXIV (B.M. Bibl. Eg. 1234). A copy of *Francisci Sanctii Brocensis comment(arii) in Andreae Alciati Emblemata* published at Lyons by Guillaume Roville in 1573, interleaved for Nicolaus Claus of Skara in Sweden, contains inscriptions of learned men and the owner's fellow students at German universities and other towns in 1605 to 1628. The most interesting is that of Johannes Kepler, the astronomer.

f. 242^b. "Nemo cadit, recubans, terrae de cespite planae.

O curas hominum, o quanta est in rebus inane."

Joannes Keplerus Sa^r C. Mtis. Rudolphi II Mathematicus scripsi Lincii. Id. Jun. Anno. Christianorum. MDCXI.

No. XXV. In the Album of Matheus Schmoll of Ratisbon, 1628, left to the library of our Society by the late Sir Wollaston Franks, is the following inscription by Johannes Kepler:

f. 136. "O curas hominum, o quantum est in rebus inane;
Si nisi per Mundum, fuga Mundi non patet usquam."

Joannes Keplerus Imp. Caes. . . . Ferdinandi II . . . Austriae Super-Anisanac Mathematicus, scripsi Ratisbonae Nonis Decembris Anno MDXXVI.

No. XXVI (B.M. Bibl. Eg. 1238). The Album of Paul Groe of Nuremberg

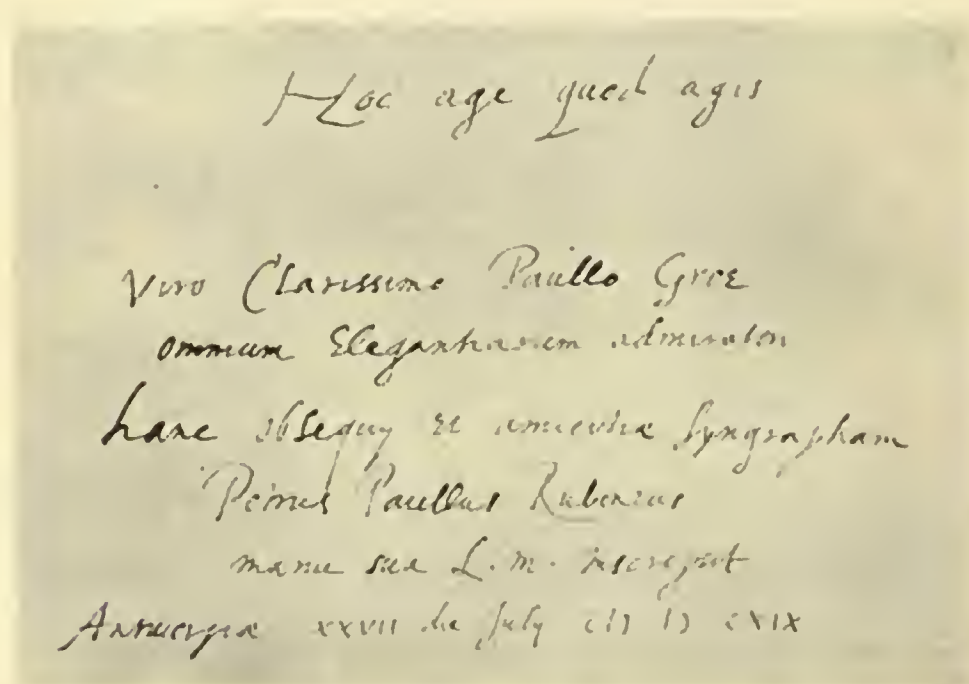


Fig. 3. Album of Paul Groe.

contains autograph inscriptions of learned men, professors, and the owner's fellow students and travelling acquaintances, dated at Altdorf, Jena, Leyden, Louvain, Antwerp, London, Paris, and other places in the years 1606-1620.

Amongst them are the following:

ff. 2 and 2^b. Johann Ernst der Jünger, Friedrich, Wilhelm, Albrecht, Johann Friedrich, Ernst, Friedrich Wilhelm, and Bernhard, Dukes of Saxony, sons of Johann, Duke of Saxe-Weimar.

f. 8 (fig. 3). "Hoc age quod agis."

Viro Clarissimo Paulo Groe omnium elegantiarum admiratori hanc obsequii et amicitiae Syngrapham

Petrus Paullus Rubenius
 manu sua L. M. Inscriptis
 Antwerpiae xxvii die Julii mdcxix.

f. 9. Joannes Meursius.

f. 28 (fig. 4). "Pondero non numero."

Guillielmus Camdenus Clarenceux Rex Armorū in Anglia ad amicitiae
 Aram

P. 1619.

No. XXVII (B.M. Bibl. Eg. 1239). The Album of Otto Heinrich, Liber Baro in Herberstein, contains inscriptions of statesmen, professors, and other learned men at the Hague, Paris, Leyden, London, Oxford, Cambridge, Edin-

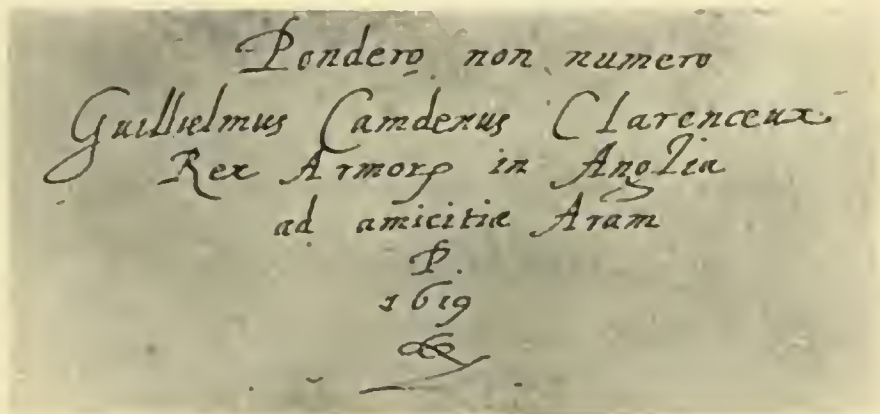


Fig. 4. Album of Paul Groe.

burgh, Dublin, and other places in the years 1607 to 1610, amongst which are the following:

f. 1. A Greek inscription.

Ego Jac. Aug. Thuanus . . . scripsi Lutetiae Parisiorum, 9 Oct. 1610.

(The great historian and book collector, †1617.)

f. 4. Dominus Jacobus Hamiltonus, Comes Abercorniae.—Robertus Hamiltonus.

f. 5. "Modestia magnas amor."

Rodolphus Winwood.

Hagae Comitibus 1608.

(Sir Ralph Winwood, English Ambassador to the States-General and afterwards Secretary of State.)

THE ALBUM AMICORUM

- f. 6. "Virtus vera nobilitat, et qui genus iactat aliena laudat."

Ri. Spencer.

Regis Angliae Legatus in Belgio.
Haghae Comitibus, 25 Septemb: 1608.

- f. 10. Dutch inscription.

Cornelis Drebbel.

van Almar. A^o 1610. den 7 Juni—in London.

(Cornelis Drebbel, born at Almar in 1572, a great scientist, mathematician, and inventor, came to England about 1604. He constructed and presented to James I. a machine for producing perpetual motion, which is described and illustrated in *A Dialogue Philosophicall* by Thomas Tymme. Besides many optical and mathematical instruments, he constructed a submarine boat which travelled under the water from Westminster to Greenwich. Drebbel died in London in 1634.)

- f. 13.

"Virtute et Genio."

Carolus Clusius adscribendam.
Lugdunis in Batavis 5 febr. 1609.

- f. 13.

Melchior Sebizius, Argentorati 19 Dec. 1607.

- f. 22.

Isaacus Casaubonus.
Lutetiae Parisiorum Oct. 1610.

- f. 42.

"Virtuti Omnia Parent."
Franciscus Swertius F., Antwerpianus.
1609. xvi. Maij.
Antwerpiae Ambinaritorum.

- f. 54.

"Man that is Regenerate, never can bee degenerate."
Anthonius Stafforde, Weschestriae.
27 Augusti, anno Salutis 1610.

No. XXVIII (B.M. Bibl. Eg. 1242). An interesting Album is that of Jonas Kröschl of Dresden, a court- and field-trumpeter of the Elector of Mainz, containing chiefly autograph inscriptions of other field-trumpeters in the service of the Emperor, the Duke of Saxe-Eisenach, the Elector Palatine, the Prince of Anhalt, the Margrave of Brandenburg-Onolzbach and of Count Hohenlohe in the years 1608 to 1611. Some of the inscriptions are:

- f. 2.

"Mit Freiden daran und mit Glück davon."

Arms: *silver a plume azure gold and gules* (not in R. or S.).

Jonas Kröschl von Dresden. Veld Tromet gehöret dieses Stambuch 1608,
20 Oct.

f. 4. "Glück und Lieb, Stild khein Dieb."

Arms: *per fess gules and gold a leaping stag proper* (not in R. or S.).

Dieses hab ich Caspar Wildt Trometer jetziger Zeit, Churf. Mentz. Musicus dem Ehrenhafften Jonas Kröschl Chf. M. Hoff und Veld Trometer zu guten Gedechnuss geschrieben. Actum den 18 November 1608.

f. 5. "Wo Trometter da Freudt, Wo Mussicanten da Neidt, Wo Jungfraun da Lust, Wo Schust und Schneid da Hunger undt Durst."

Herman Gremb	alle fürstliche Saechse
Hans Erhart Otho	Tromett zue Coburg haben dies
Godfrid Jordan	Unsern guten Bruder Jonas
Michel Onardan	Kröschl Churf. Mentz. Hoff
Michel Loss	Trumetter zue gutem
Bartel Jordan	Gedächtnuss geschrieben.
Christoph Baumeir	Aschaffenburg den 24 October 1608.
Hans Lömer	
Gerhart Herzberger	

f. 12^b. . . . zu Nürnberg den 3 October 16011 (*sic*).

Sigmundt Lenckh, f. Anhaltischer Drumetter.

"Gottes Gnadt undt gesunder Leib
Ein warmes Bett und ein schenes Weib
Ein althes Gelt und gutter Wein
Soll Allzeit bei einand sein."

f. 13^b. Zu Nürnberg den 3 October 16011 (*sic*).

Ich Hans Bumer, Deifel Hensel genannt, f. Anholdischer Veld Drumetter.

"Was Gott will, wer wers."

f. 27. Prag 7 May 1610

Erasmus Ramsentaller, Gräfflicher Hoenloischer Vellt Trompetter.

f. 37. Nürnberg 12 Noṽbris 1611.

Abraham Wimmer, fürstl. Brandt. zu Onoltzbach Trommetter.

f. 40. Dis schrieb ich . . . und zu gedenken unserr Riss nach Dresin, geben und geschriben. In Prag d. 1 May A° 1611.

Balthaser Bauman von Gelnhausen C-furstlich Mentzig Einspennig.

No. XXIX (B.M. Sloane 3415). The Album of Charles de Bousy, containing autograph inscriptions, some with shields of arms, a few with miniatures, of royal and princely persons, nobles and others, dated at London, Orleans, Dresden, Paris, Bützow, and Hamburg in the years 1608-1621. Some of them are:

f. 2 (fig. 5). "Fax mentis honestae gloria."
Henricus P.

f. 5 (fig. 6). "Si vis omnia subiicere subiice te rationi."
Ebor-Albaniae D.

f. 6 (fig. 7). 1609.
"Giunta mi piace honesta con leggiadria."
Elizabeth P.

f. 7^b. 16 C H 10.
J. S. T. D.
Electoral arms of Saxony.
Christian Churfürst.

f. 8. Arms of Denmark.
Hedwig geboren aus Königlichen Stamme Denmark, Churfürstin zu
Sachsen, 1610.

"Halss mitt jderman freuntlich
Trau aber unter tausent kaum Einen."

f. 21. "Vanish Feare since they who fall low must dy
As well as they that tumble headlong from the sky."
"Felix periit quicunque quem odit premit."
"Dou leur D'ou leur."
"Concilio nel guanciaie."
"Nach Recht und Ehren Stehet mein Begeren."
"Mas honra que vida."

E. Sackeville.

(This is probably Sir Edward Sackville (1591-1652), who, after the death of his brother Richard in 1624, became fourth Earl of Dorset; he was one of the commanders of the forces sent under Sir Horatio Vere to assist the King of Bohemia, sailed on 22nd July, 1620, and was present at the battle of Prague on 8th November, 1620. In 1621 he vigorously defended the proposal to vote a subsidy for the recovery of the Palatinate.)

f. 32. 1621.
"Vivit post funera virtus."
H. Levingstone.

"Est virtus, &c."

Arthurus Forbesius, Scotobritannus.

(This is probably the Sir Arthur Forbes who in 1631 commanded one of the five battalions of Scottish soldiers in the north of Germany under the Swedish general Todt, and who helped to clear Mecklenburg of the enemy and to storm many fortified places. Fischer, *The Scots in Germany*.)

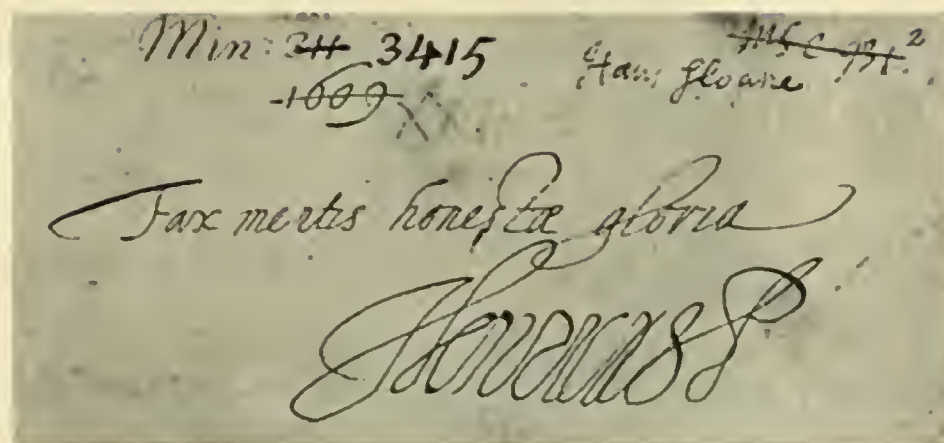


Fig. 5. Album of Charles de Bousy.

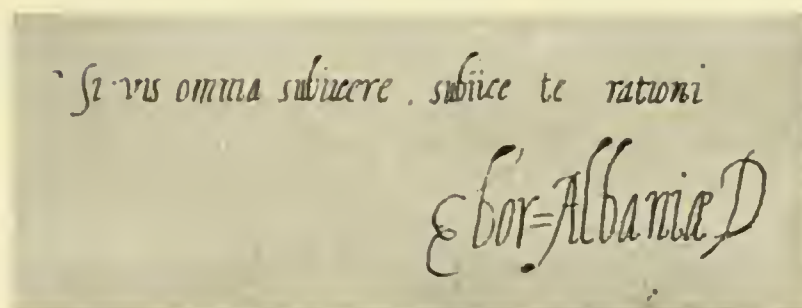


Fig. 6. Album of Charles de Bousy.

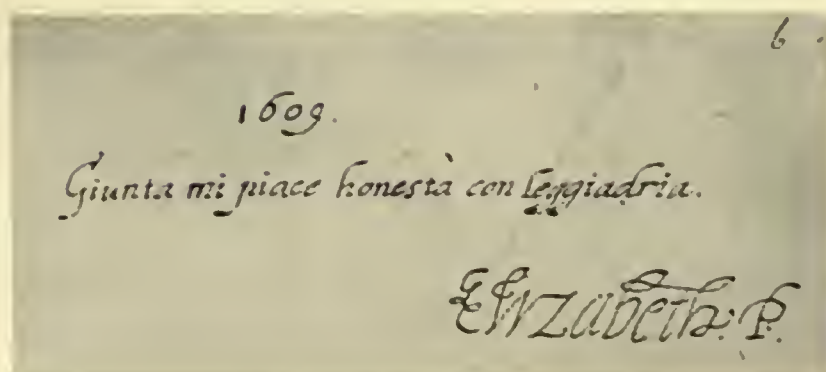


Fig. 7. Album of Charles de Bousy.

No. XXX (R.C.). The Album of Antonio Fabri, Organist at S. Antonio at Padua, contains inscriptions, sometimes accompanied by arms and miniatures, of Danish, German, and Swiss students at the University of Padua, in the years 1608 to 1625; it is in its original stamped leather binding with the monogram of the binder, M. W. Amongst the entries are the following:

f. 27. "Chi ha la fortuna per guida va sicuro al suo viaggio."

Arms (R. ii. 359: S. i. 15).

Giovanni Filippo della piu antiche famiglia Conti d'Ortemburgo . . . Padoa alli 9 di feb: de l'anno 1615.

f. 40^b. Arms: *per bend silver and gules a bend nebuly counterchanged quartering silver three piles azure a base gules, over all on an escutcheon azure a chevron silver* (R. ii. 1113: S. i. 26, who blazon 1st and 4th quarter: *per bend nebuly silver and gules*).

Udalricus Baro a Wolckenstein et Rodnegg . . . Patavii, 1^o Aprilis A^o 1625.

f. 41. His miniature full-length portrait.

f. 47^b. "Anno 1617. 26 Martii."

"Ou bien ou rien."

Arms (R. i. 1049: S. v. 3).

Ferdinando Jörgero L. Barone in Kreuspach.

f. 48. Miniature.

f. 73. "Bien vivre et bien mourir

C'est mon plus grand desir." "Tacendo spero."

Arms (R. i. 37: S. i. 22).

. . . Padova l'anno 1628 ad. 28 Feb.

Eustachio Barone d'Althan signor in Goltburg . . .

f. 117. 16+11.

"Tout pour elle rien sans elle mais qui est elle."

"A . S . V . M . D . S . S ."

Arms (R. ii. 808: S. iii. 89).

Sebastian Speidl.

f. 151. "Musica est grata Deo, et hominibus."

"M , V , S , I , C , A . Anno 1615."

Miniature showing the owner or his friend playing the spinet.

. . . Samuel Gensufius Austriacus.

f. 162. "Non mi curo della Luna
Quando mi splende il Sole."

Arms (R. ii. 587: S. i. 174).

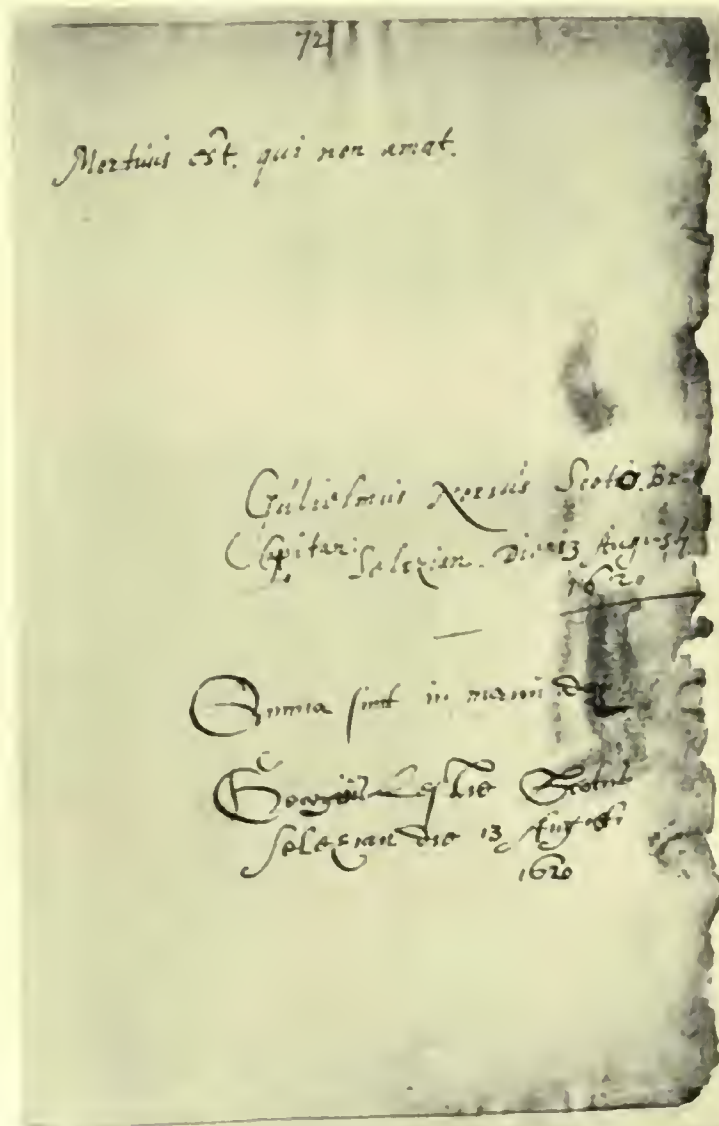
Daniell von Rochow m.ppria.



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No. XXXI (R.C.). The Album of Johannes Wiliczky of Witkowa, a Polish noble, is full of interesting inscriptions and finely painted shields of arms, collected by him whilst visiting the courts of northern Germany in 1608 and 1609, London and Paris in 1610. In August, 1620, we meet him at the camp of Selczan (south of Prague) amongst the Scottish captains of Frederick, Count Palatine of the Rhine, King of Bohemia. Amongst the entries, dated 1608 to 1630, are the following:

f. 24^a.

"16. H. E. 09."

"H. P. P."

Arms of Brunswick with inescutcheon: Bishopric of Halberstadt.

Henricus Julius Dei gratia P. E. H. D. B. D. L. manu sua.

"16 IH 09."

"En dieu est mon esperance."

Elisabeth geboren aus Königlichen Stamme zu Dennemarken, Hertzoginn zu Braunschweig unnd Lüneburg meine Hand.

"1609. La volonté de Dieu est mon but."

Frewlein Elisabeth, geborne Hertzogin zu Braunschwig und Lüneburgk meine Handt.

"1609. Omnia ā Deo."

Freulein Hedwig geborne Hertzogin zu Braunschwig und Lüneburgk meine Handt.

1609.

"Deus ordinabit."

Frewlein Dorothea geborne Hertzogin zu Braunschwig und Lüneburgk, meine Handt.

f. 24^b.

"16. PHILOSOPHIA. 09."

"Christo et Reipublicae." "Pulchra est Concordia Cordis et Oris."

Arms of Pomerania.

Philippus Dux Pomeranorum, in Veteri Stetino 15 Martii . . .

f. 25.

"16. P. 09."

"A. N. C. W."

Arms of Holstein.

Sophia geborne zu Sleswigk Holstein Hertzogin zu Stettin Pommern.

f. 29^a.

"1.6. A. . o. 9." "V. P. F. U."

Arms of Holstein.

J. Adolff H. z. Holstein.

"16 A o. 9 A. W. E. G. G."

Arms of Denmark.

Augusta, geborene aus Königlichen Stamm Dennemarken, Hertzogin zu Schleswig Holstein. Meine Hand.

16 Aⁿ 09.

Arms of Holstein.

Fridericus D. S. Holsatiae.

Adolphus D. S. Holsatiae.

f. 29^b (plate XXXI. 2). "1 A. 609." "W. G. W."

Philippus Julius Dux Stett. Pom. manu propria.

16. P. I. 09. "W. R. M. D. H. G."

Agnes Gebor. Marggrefin aus Churfürstlichem Stam Brandenburgk Herzogin In Pommern Manu propria.

1609. A. N. G. W.

Elizabeth Sophia Geborne Marggrefin aus Churfürstlichem Stam zu Brandenburgk. Manu ppa.

1609.

"A. W. G. G."

Dorothea Sibylla Geborne Marggrefin aus Churfürstlichen Stam Brandenburgk. Mappa.

Two shields of arms: Pomerania and Brandenburg.

f. 33.

CIO IO CIX.

"Vince malum bono"

S. D.

Christianus Dux
Brunsvicensis et
Luneburgensis.

Rudolphus Dux Brunsvicensis
et Luneburgensis.

Arms of Brunswick.

f. 33^b.

1609.

"Herr Wie Du Wilt."

Marie geborne Herzogin zu Sachsen des Kaiserlichen freyen weltlichen Stiffes Quedelburk Abbettissin . . .

Arms of Saxony with inescutcheon Quedlinburg.

f. 39.

"1609." "D. A. M. N."

Johannes Georgius princeps Anhaltinus manu ppr.

1. 6. 1610. 9.

"J. D. H. J. D. H."

Dorothea, F. z. Anhalt geborne Pfaltzgreffin bey Reihn.

Sophia Elisabeth F. z. Anhalt manuppr.

Agnes Magdalena F. z. Anhalt.

Anna Maria F. z. Anhalt.

Arms of Anhalt-Dessau.

Entries of peculiar interest are the following inscriptions of Scottish captains and soldiers, dated 13th August, 1620, at the camp of Selczan, about 25 miles south of Prague, men who either had followed Frederick and Elizabeth when they accepted the Bohemian crown, or formed part of the 2,000 volunteers raised for them by James I.'s permission, by Sir Andrew Gray, who early in 1620 had come from Bohemia to England for that purpose. After the disastrous battle of the Weisse Berg, which put an end to Frederick's kingship of Bohemia, some of these captains joined the different forces of the Union, and some of them, later on, the Swedish army; a few became noted leaders under Gustavus Adolphus, especially Sir James Ramsay, who, distinguishing himself in many engagements, especially in the defence of Hanau, died in 1639. George Leslie died in 1638 as Governor of Vechta, in Oldenburg. These and William Stewart, brother of the Earl of Traquair, are mentioned in the "list of the principal Scottish officers employed by Gustavus Adolphus in Germany" (Th. A. Fischer, *The Scots in Germany*).

- f. 65. "Plus tost que tard."
Andreas Gray.
- f. 66. "Jamais arriere."
J. Ramsay.
"Sans sousie."
James Norrie. Francis Tirwhitt.
"Mediocria tuta."
Patricius Hannay.
- f. 72 (plate XXXI. 3). "Mortuus est qui non amat."
Gulielmus Norius, Scoto. Brit.
Capitan: Selczian Die 13 Augusti 1620.
"Omnia sunt in manu Dei."
Georgius Leslie, Scotus.
Selczian die 13 Augusti 1620.
- f. 73. "Poca parola, basta."
Gulielmus Steuwart Scotobrittannus.
Capitan: Selczan 13 Aug. 1620.

On the last leaf, f. 223, we find the arms of Austria with the collar of the Golden Fleece and the autographs, dated 1610, of Isabel Clara Eugenia, daughter of Philip II. of Spain, and of her husband Albrecht, Archduke of Austria and Governor of the Netherlands. They were relegated to the end when the owner had his Album bound, no doubt because they were then on opposite sides in politics.

No. XXXII (R.C.). The Album of Valentin Löw, a pastor of the reformed Lutheran church at Neudeck, Prague, and Eger, is of peculiar interest for its autographs, some with shields of arms, of generals and other soldiers and high officials of the kingdom of Bohemia, some of whom took a leading part in the revolution of 1618, the beginning of the 'Thirty Years' War, and had become adherents of Frederick V, Count Palatine of the Rhine, after his election as King of Bohemia in 1619. After the disastrous battle of Prague some fled into exile, others were beheaded or imprisoned in 1621, and the property of most of them confiscated. Between 1620 and 1623 there are no inscriptions, but many from 1624 to 1629, referring to the persecution of their common religion and church.

Some of the entries are:

f. 1. 160 HEE 9 "Gott Mein Hoffnung."

Arms: *gules a swan silver* (R. ii. 742: S. i. 31).

Hans Georg Herr von Schwannbergk . . . R. K. Mjt. Radt und oberster Landt Kamererr derr Kronen Behmen geschribn Prag den 11 August.

f. 2. 16 . S . E 09.

"Ee wiegs alss dan wags."

Arms: *silver a tower gules quartered with azure two gold maces flory in saltire and in base a gold fleur-de-lis, on an inescutcheon gules an eagle dimidiated impaling silver a cross gules* (R. ii. 911: S. i. 18).

Hainrich Matthes Graf von Thurn, General Leutenamt Obrister über ein Regiment Knecht, schrieb zue guetter gedechtnuss Jn Prag, den 23 Tag Augusti.

(There were many causes for the breaking out of the war, but this Count von Thurn gave the signal for it on the 22nd May, 1618, when he and his co-conspirators stormed the castle, threw the imperial counsellors out of the windows, and the following day constituted a provisional government of Bohemia, the chief directors of which were Wenczel Wilhelm von Rupowa, Wenczel von Budowa, and Andreas Schlick; Thurn did not form part of it, but centred his energies on the organization of the Bohemian forces.)

f. 3. 16 - 09 "G . G . G . W . W ."

Arms (S. i. 23).

Leonhardt Co(lonna) Freih. zu Vels R. K. M. Radth undt Oberster Veldt Marschalck im Königreich Behmen . . . Prag den 26 August.

f. 4. 1609 "Trau Schau Wem."

Arms (S. i. 32: R. ii. 86).

Wilhelm der Elter H. von Lobkowicz R. K. M. Mundschenk Verorneter Director von den drei Evangelischen Stenden des Khinikraich Behem . . . Prag . . . d. 26 August . . .

f. 5. "Mein Hoffnung in Gott allein."

Arms: *gules a bend wavy silver over all a staff raguly proper in bend sinister* (not in R. or S.).

Andreas Stegeman, Rom. Kais. May. Hertschier undt Hoffbalbier. Jn Prag 23 October 1616.

f. 24. "1610." "Gottes Gnad erfreiet mich."

Arms: *gold a griffin holding in its right paw a hammer azure* (not in R. or S.).

Christoff Khober von Khobersperg Rom. Kai. Maytt. Raith Rath bei der Behmischen Cammer Buchhalterey. Prag 8 Aprilis a. w. s.

(This man, who had been elected one of the representative directors of the new government in 1618, was imprisoned for having taken part in the revolution, and beheaded 21st June, 1621.)

f. 25. Anno 1609 d. 26 September.

Arms: *barry silver and sable on a pile transposed azure a tower argent loop-holed gold and topped with a spire gules rising from a mount vert* (not in R. or S.).

Eustachius Wettengel sambt seinen Söhnen Alle vonn Neuen Perg.

(The property of this rich citizen of Prague was confiscated after the battle of the Weisse Berg.)

No. XXXIII (B.M. 15736). The Album or "Hand und Wappenbuch", as the owner, Georg Andre, Freyherr von Herberstein, called it, contains autographs and arms of royal and princely personages, and of his friends and fellow students at Steyr in 1611, Strasburg 1611-1615, Würzburg and Frankfort-on-the-Main 1615, Leyden, Louvain, London 1615-1616, and Steyr 1622-1623. Among the inscriptions are:

f. 4. "Si vis omnia subicere, subijce te rationi."

1616. Carolus P.

f. 5. "Non fa stimo che dell' honore."

1615. Elisabeth.

f. 5^b. 16. E. 15.

"R. M. H. A. D. W."

Fridericus Elector Palatinus.

f. 7. 1611.

"Sufficit mihi gratia tua Domine."

Arms: quarterly, 1, *per pale gold and silver an eagle displayed sable*; 2, *gold a crowned eagle displayed sable*; 3, *checky gules and sable*; 4, *gules two bends sinister gold*. Over all an *escutcheon per fess sable two silver bars and silver* (S. i. 6).

Henricus Wenceslaus Dux Monsterbergensis.

Argentorati 5 Dec. a. ut sup.

- f. 16. "1611." "Ex alta pietas mortalia despicit arte."
 Arms of Reus-Plauen (S. i. 19).
 Henricus Medius Ruthenus, D^r in Plauen.
 Argentorati, xx Dec.

No. XXXIV (B.M. 17083). Album of Sir Thomas Cuming, collected whilst at the University of Heidelberg, and at Bâle, Leyden, London, Prague, and Vienna in the years 1612-1616. Prefixed is a copy of letters from Frederick V., Elector Palatine, recommending him on the score of consanguinity to all the noble persons of the name of Buchan dwelling in Austria. Some of the entries are:

- f. 4. Arms of the Elector Palatine, surrounded by the Garter.
 "16 . E . 14 ."
 "R . M . H . N . D . W ."
 Fridericus, E. P. Heidelbergae die . . . Iulii 1614.
- f. 4. Arms of Charles I. as prince, and his portrait.
 "Si vis omnia subjicere, subjice te rationi."
 Carolus, P. 1613.
- f. 10^b. } Arms of Brandenburg.
 f. 11. } "1614." "A coeur vaillant rien est impossible."
 "Deo parere libertas."
 Georgius Wilhelm, Marchio Brandenburgensis.
 Dux Prussiae Iuliae Cliviae Montium.
- f. 13. Arms of Palatinate and Bavaria.
 "16 M 16."
 "In Deo mea consolatio."
 Wolfgangus Guilelmus Comes Palatinus.
 Dux Bavariae Iuliae Cliviae Montium.¹
- f. 43. (John Ramsay, Viscount) Haddington. 1613.
- f. 44. Robert Couttis. 1613.
- f. 46. Petrus (Blackburn) Abredonensis in Scotia episcopus. 1612.
- f. 47. "1616."
 Venceslaus Guilielmus, Baro à Raupa, S. Caes. Maj. à consiliis et cubiculis.
- f. 59. Tobias Matthaeus, Eboracensis Archiepiscopus.
- f. 59^b. Jo. Kinge, Episcopus Londinensis.

¹ It is interesting to note the inscriptions on ff. 10^b, 11, and 13 of Georg Wilhelm, Margrave of Brandenburg, and Wolfgang Wilhelm, Count Palatine; both were claimants to the succession of Jülich, Cleve, and Berg, and their signatures give expression to their rivalry.

- f. 64. "1616." Rodolphus Hospinianus, Tigurinus.
 f. 65. "1615." Dionysius Gothofredus, Heidelbergae 1615.
 f. 67. "1612." Alexander (Douglas) Episcopus Moraviensis.
 f. 67^b. David (Lindesay) Episcopus Rossensis.
 A(ndrew Lamb) Brechinen.
 f. 81. "1613." A. Ramsacus, M.A. Phi. Doct. Londini, 1613.
 f. 83. J(ames Montagu) Bath(oniensis) et Well(ensis Episcopus).
 f. 87. Rob(ertus) Abbott, Sacrae Theol. Acad. Oxon. Profess. Regius.
 f. 105. Valentinus Carey, Procancellarius Academiae Cantabrigiensis.
 f. 105^b. Johannes Richardson, Theologiae Professor Regius.
 f. 136. "1613." Guil(ielmus) Pemberton, ecclesiae Dei in paroccia de Ongar
 Altà in comitatu Essexiae Minister.
 f. 143. Geor(gius Gladstones) Sancti Andreae Archiepiscopus.
 f. 145. 1613. Gulielmus Crashovius, verbi Dei apud Templarios Londoniae
 praedicator.
 f. 146. "1612." Patricius Sandaeus in Collegio Edinburgo Professor
 Philosophiae.
 f. 148. "1613." Johannes Prideaux, S.T.D. Colegii Exoniensis Rector,
 Oxoniae.
 f. 150. "1613." Js(aac) Casaubonus, Londini.

No. XXXV (R.C.). The Album of Giacomo Lauri, an engraver at Rome, author and engraver of "Antiquae urbis vestigia quae nunc extant. 1608", and of "Antiquae urbis Romae splendor, 1612", who also engraved after Titian, An. Carracci, and Giuseppe d' Arpino.

Unfortunately this book has been restored, as the restorer's remarks on the fly-leaf show, in the year 1687 by Anne Lefebure, "Marchant Orfevre," at the sign of the Ville de Paris at Rome, and has been badly used, many of the arms having been cut out and others painted over at the restorer's fancy. The book also contains copies of letters Lauri had received from crowned heads acknowledging the receipt, and praising the beauty, of his works, likewise many inscriptions, with shields of arms, of visitors to Rome, and some of these arms have either been wrongly blazoned or badly treated on restoration. Among the entries are:

- f. 98. "Tout avec le temps."
 Arms (S. v. 149).
 Rome den 30 Martii Anno 1622.
 Erick Rosen Krantz Jacob Son Danus.

f. 112. "Año 16 Nichts ohn Ursach 20. die 21 8bris."

Arms (S. i. 19).

Carl Fugger Freiherr von Kirchberg und Weisenhorn.

f. 164. "Integritate nil pulchrius."

Arms: *azure a chevron gules between ten crosses gold*; instead of *gules a chevron between ten crosses paty silver*.

Georgius Baro Berkeley, Anglus. 1628.

f. 167. 1629.

"Fortuna fortes metuit ignavos premit."

Arms: *gules a talbot passant gold* (should be *gold a talbot sable*) quartering Cromlin.

Gulielmus Courten, Anglus.

Romae, 22 . . .

(This is the second son of Sir William Courten (Courteen), who died at Florence in 1655.)

f. 205. "Meruisse satis."

I that have sene the ingenuitie of S^{or} Jacomo Lauri and tasted the delicious fruits of his much to be commended labours, am invited to make choice of these two words above for my Motto.

Guglielmo Yelverton, Jnglese.

Roma, 27 Aprile 1624.

f. 205^b. Inquier

At London for S^r Henry Spelman of Congham in Norffolke the bea(rer) of these armes, who will plesur yo(u) in the Antiquities of England and make you wellcum.

Arms: *sable twelve plates and two flaunches silver* (Spelman) quartering *gules a chief ermine* (Narborough), *azure a chevron between three gold leopards' heads* (Frowyk), and *gules two leopards silver* (Lestrange).

Leffte heere in Roome the laste of Desember 1619 by his secund so(n).

f. 206. Pietro Wentworth servitore del Sig^{ra} Jacobo Lauro in recordanza dell amicitia scrissi quest(e) in Roma alle sedeci d'Aprili MDC 20.

Arms: *Sable a chevron between three leopards' heads gold*.

(Sir Peter Wentworth, the politician, born 1592, was made a knight at the coronation of Charles I.; on 18th December, 1641, elected to the Long Parliament as member for Tamworth; was appointed one of the Commissioners for the king's trial, but refused to act; a friend of Milton. By his will he left his property to his grand-nephew, Fisher Dilke, on condition that he and his descendants should take the name of Wentworth. A portrait of Sir Peter Wentworth is in the possession of Sir Charles Wentworth Dilke, Bart., M.P.,

whose great-great-grandfather, Wentworth Dilke Wentworth, was the last of Fisher Dilke's descendants to use the stipulated surname. *Dict. Nat. Biogr.*)

No. XXXVI (R.C.). The Album of Marcus Antonius Welser, of the patrician family of that name at Augsburg, contains inscriptions, some with the arms also, of his friends and fellow students, dated at Bourges, 1616-1618, Lyons, 17th May, 1618, Geneva, 20th May, 1618, Augsburg, 21st September, 1618, Venice, 20th October, 1618, Bologna, November, 1618, 28th October, 1619, Florence, 9th November, 1619, Siena, 28th February, 1620, Rome, 25th April and 16th May, 1620, Perugia, September, 1620, Rome, 4th April, 19th May, 1621, April, 1623, April, 1624, Iburg (the residence of the Bishops of Osnaburgh), September and October, 1625, Munich, January, 1626, Cologne, October, 1629.

As the inscriptions show, he was in the service of Eitel Friedrich, Cardinal von Hohenzollern, who was created cardinal in 1621, Bishop of Osnaburgh, 19th April, 1623, and who died 19th September, 1625. Some of the entries referring to the cardinal's death are dated at "Iburg in tempore desolationis", 26 September to 1 October, 1625. Among the entries are:

f. 1. "Amicum proba probatum ama."

The owner's arms (*per pale silver and gules a fleur-de-lis counterchanged*), name, and the date 1616.

f. 21. "Amicum nec prospera extollunt nec adversa deprimunt."

Arms (R. ii. 126).

Jucundae memoriae ergo haec sua insignia pingi curavit Dñõ Nobilis^{mo} Antonio Marco Welser, Perutiae 24 Septem. 1620, Carolus Emmanuel Abbas Madrutius Comes Avij et Chiallanti.

(Charles Emanuel Count Madruzzo, b. 5th November, 1599, Bishop of Trient in 1629, was the last of his family.)

f. 39. "Sic, sic juvat ire sub umbras."

Arms: *azure a pelican in her piety gold.*

Arthurus Lake, Anglus.

Bourges, Ann. 1616 prim. Oct.

f. 58. Dis schrieb . . . Johan Friederich von Bittlenberg genannt Kessel von Haxthausen zu Iburg in tempore desolationis den 26 Septembr. A°. 1625.

f. 62. "Per Augusta ad Augusta."

. . . Guil. Henseler. J. U. L. Ill^{mi} et R^{mi} Cardinalis Zollerani Epi Osna-brugens. Cancellarius.

Iburgi ipsis Kal. Octob. 1625.

No. XXXVII (R.C.). The Album of Johann Theodor von Roth contains inscriptions, many accompanied by the arms, of his friends and fellow students

at Würzburg in 1621-1622, Freiburg 1623, Besançon, Orleans, and Bourges 1624-1625, Lyons and Florence 1626, Siena 1626-1627, and Venice 1628. Some of the entries are :

f. 21. 1624. "A coeur vaillant, rien impossible."

Arms (R. ii. 535: S. i. 25).

Henricus Alexander Baro de et in HohenRechberg, 15 Aprilis a Besançon. Note in the owner's hand: "+ regescat in pace."

f. 32. "Les Roys et les amants ne veulent point de Compagnon."

Arms (R. ii. 1121).

Jean Honoré Wurmbrand Baron escrit cecy à Bourges ce 26. d'Avril 1625.

f. 51. 1624. "A tous servir c'est mon desir."

Arms (R. ii. 817: S. i. 111).

Wolfgangus Wilhelmus à Stadion.

f. 99. "Virtutis Gloria Comes." 1624.

Arms (R. ii. 723: S. i. 133). Aureliis 25 Octob.

Johannes Philippus à Schönborn et Philippus Erwinus à Schönborn Fratres.

(This Johann Philipp von Schönborn we shall presently meet in the Album of Georg Christoph Hanseman, of Ratisbon, as Elector and Archbishop of Mainz, 1647-1673.)

f. 118.

"Honneur, Santé et longue vie

Bon cheval et Bell'amie

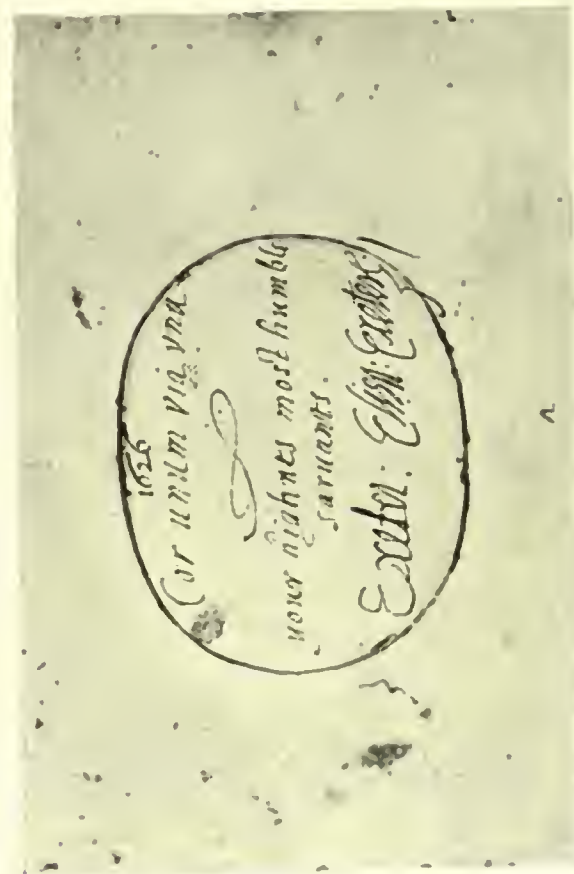
cent Escus quand je voudray

et le Paradis quand je mouray."

Arms (R. ii. 275: S. i. 81).

Godefridus Henricus à Muckenthall, Biturigibus die 30 Novembris Anno 1624.

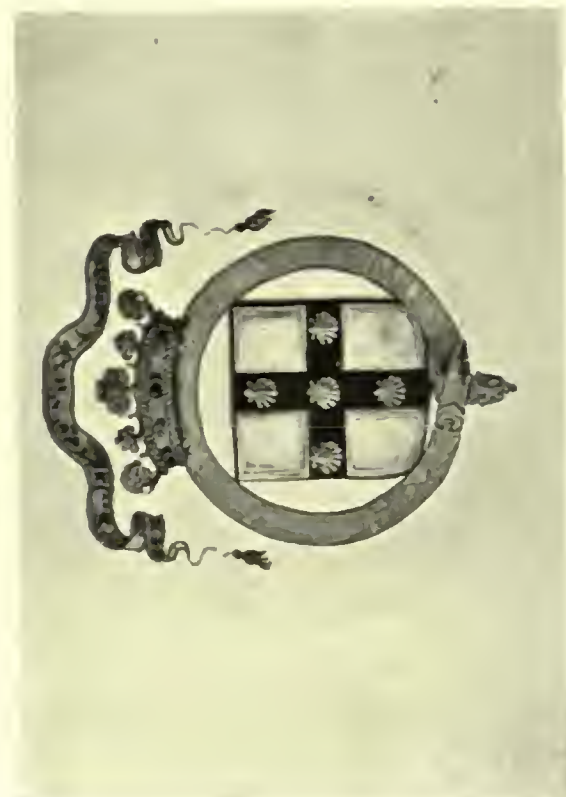
No. XXXVIII (B.M. King's 436). An Album, described as that of Charles Louis the Elector, son of Frederick, King of Bohemia, but which I have reason to believe belonged to his elder brother Prince Henry Frederick (1614-1629), heir-presumptive to the throne of Great Britain, and only after the latter's death to have come into the possession of, and been continued by, Prince Charles Louis. This Album, dated from 1622 to 1633, contains amongst others the autographs, some accompanied by the arms, of Charles I. and his queen Maria Henrietta, of the King and Queen of Bohemia, of William Cecil, 2nd Earl of Exeter, and Elizabeth Drury his second wife, Diana Cecil Countess of Oxford, Christian Duke of Brunswick, Frances Howard Duchess of Richmond, William Herbert Earl of Pembroke, George Villiers Duke of Buckingham, Henry Rich Earl of Holland, John Holles Earl of Clare, Philip Herbert Earl of Montgomery, and Susan Vere Countess of Montgomery.



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A later entry, dated 1699, is that of Charles Maurice; illegitimate son of Charles Louis by Louise von Degenfeld, whose children received the title of "Raugraf".

Some of the entries mentioned are as follows:

f. 1.

1626.

"Si vis omnia subdicere subdices te rationi."

Carolus R.

f. 2.

"En dieu est mon esperance."

Henriette Marie, R.

f. 3.

16 E 22.

A . E . T . C . A . C .

Frideric.

f. 3^b.

1624.

N . V . C . Q . A . C .

Elizabeth.

f. 4. Arms: Bohemia and Electoral Palatinate impaling Great Britain.

f. 5^b (plate XXXII. 1). 1626. "Cor unum via una."

your highnes most humble sarvants

Exeter.

Elisa: Exeter.

f. 6 (plate XXXII. 2). Arms: Cecil Earl of Exeter impaling Drury.

f. 7^b. Je me console en m'assurant que le ciel possede ce que i'ay perdue.

D: Oxenford.

1626.

Servante tres humble de v're Altesse.

f. 8.

Arms: Vere Earl of Oxford impaling Cecil.

f. 9^b.

16 E 22.

"Tout pour dieu et ma chère Reine."

Christian (Duke of Brunswick).

f. 10.

Arms of Brunswick-Lüneburg.

f. 20^b. "la plus brave conquete c'est de vaincre soy mesme."

K: Buckingham.

très humble servante de votre Altesse.

f. 24^b.

1626. "Virtus secunda sequetur."

Pembroke

y^r Highnesses most humble servant.

f. 31^b (plate XXXII. 3). 16. "Fidei coticula crux." 25.

Arms of Villiers, Duke of Buckingham: *silver on a cross gules five escallops gold*, surrounded by the collar of the Garter.

f. 32 (plate XXXII. 4). "Adelante."

G. Buckingham.

f. 32^b. "Nil actum dum quid agendum."

Hollande.

f. 33. Arms of Henry Rich (second son of Robert Earl of Warwick), Earl of Holland: *gules a chevron between three gold crosses botony, a crescent for difference*, surrounded by the collar of the Garter.

"Ditior est qui se."

f. 34^b. "Mihi quid nisi vota supersunt."

Y^r highnes late most glorius brother Prince Henry most obliged and your Highness most humble servant

Clare.

f. 35. Arms of John Holles, first Earl of Clare.

"Perdidi sed inveniam."

f. 38^b. "Turpis sine pulvere palma."

Montgomery.

youre Hinesses most humble servant.

f. 39. "The more I love the more I serve."

S. Montgomery.

No. XXXIX (R.C.). The Album of Andreas Pramer contains inscriptions and arms of his friends, dated at Paris, Orleans, Saumur, Montpellier, Toulouse, in the years 1632 and 1633, and a few at Florence and Milan in 1634. The following are some of the entries:

f. 25. "Principibus placuisse viris non ultima laus est."

Robertus Southwell, Hibernus ex Kinsale.

f. 26^b. Arms of Hanau Münzenberg.

f. 27. 1633. "Pour parvenir j'endure."

"Tandem bona causa triumphat."

Johannes Ernestus Comes in Hanau.

escript à Paris, le 27 du May.

f. 29^b. "Gloria non me praeda trahit."

Franciscus Hartardus Comes à Schwartzenberg.

Paris, 27 Augusti 1633.

f. 30. Arms of Schwartzenberg (R. ii. 745).

No. XL (R.C.). This Album, consisting of an interleaved copy of Johannes Sambucci's *Emblemata*, Antwerp, 1569, has been used as an Album from 1601 to 1612 by Georg Emrich, and from 1639 to 1654 by Heinrich Runge, who from 1639 to 1640 was assistant to a "plague barber-surgeon" at Dantzic, and later on

an independent barber-surgeon at Kunau; it contains inscriptions of Runge's friends at Breslau, Danzig, and Kunau in the years 1639 to 1654, and the most interesting one is that of his eight co-assistants,

"Gotthard Gnadesfriedt von Görlitz,
Zacharias Hoffman von Leipzigk,
Hans Preussel von Hall aus Saxen,
Michel Mongzen vonn Braunzweig,
Paul Rose vonn Barrleben,
Christian Wiegandt vonn Kiel,
Hans Farnberg von Osnabruck,
Hanns Musick von Coppenhagen,"

who describe themselves as "dieser Zeit Allesamt bey Herrn Michel Branden Bestalten Pestbarbiern in Danzig Dienende". On the preceding page is their master's inscription, dated 22nd March, 1640, "Michel Brandt, Bürger, Barbierer und Wundartzt dieser Zeit pestilentialis."

No. XLI (R.C.). The Album of Stephanus Tucher, "Patricius Noribergensis" as he calls himself on the title-page, is in its original sharkskin binding; it contains inscriptions, a few with shields of arms, of his friends and relations at Nuremberg in 1646, and of his fellow students and learned men at the University of Strasburg in 1647-1649.

The following are a few of the entries:

f. 47. 1647. "Fortiter mori melius est quam turpiter vivere."
Gustavus Adolphus Comes Nassoviae Sarraepont.

f. 102. "Omnia cum Deo et nihil sine eo."
Arms (R. i. 876: S. i. 205).

Albrecht Haller von Hallerstein des Eltern gehaimen Raths.
Anno 1646 den 30 Apprilis. Nürnberg.

f. 114. "Nihil hominibus praestantius, nihil utilius ordine."

Arms: *silver a bend sable and three silver chess rooks on the bend* (R. i. 526: S. i. 206).

Christoff Derrer von und zu der Untern Burg.
Nürnberg d. 25 April A° 1646.

f. 119. "Gewiss ist der Todt und der Tag
Die Stund aber niemandt wissen mag
Darumb leb alzeit darbei
Alss wenn diss dein letzte Stundt sey."
Arms (R. ii. 947: S. i. 205).

Carl Tucher der Elter, den 5 April im 1646 Jahr.

Note in the owner's hand: Obiit 30 November 1646.

- f. 142. "Quae neglecta jacent pondus habere solent
Saepè et parvis gratia rebus inest."

Melchior Sebizius Med. Doct. et Professor, Com. Palat. Caes. et Reip.
Argent. Archiater. Universit. p. T. Rector, scrib. 23 Junii 1648.

- f. 147. "Et fata habent suas horas et moras."
"Gottes Willn, Meine Hoffnung."
Argentorati 24 Junii A. d. 1648.

Joh. Rebhan, Jurispr. D. Prof. P. p. t. Colleg. Jurid. Decanus.

- f. 149. "Omne nimium naturae inimicum."

Joh. Rudolphus Saltzmann Med. Doct. sen. Reipub. Physicus ordinar.
Universitatis Profess. publ. et p. t. fac. Med. Decanus, Argentorati scripsit
8 Cal. Julii Anno 1648.

No. XLII (R.C.). An Album important from an historical point of view is that of Georg Christoph Hanseman, a doctor of law and councillor at Ratisbon; it contains inscriptions, with the arms of many electors, archbishops, bishops, princes of the Holy Roman Empire, and of their delegates and councillors, attending the Imperial Diet at Ratisbon, called by the Emperor, Leopold I. in 1662, in consequence of the war against the Turks.

There are also the inscriptions and arms of the papal delegate, and of the ambassadors of the kings of France, Sweden, Denmark, and Norway.

Amongst the entries are the following:

- f. 15. "Sit Nomen Dñi Benedictum."

Arms: Caraffa della Spina (R. i. 371) under a cardinal's hat.

Carolus Card^{us} Carafa.

Ratisbonae, a. d. 1664.

f. 15^b. Arms: Bishopric of Würzburg quartered with Mainz and Worms; inescutcheon: v. Schönborn.

- f. 16.

12 Martii 1664.

Joēs Philippus El. A. M.

(Johann Philipp von Schönborn, Bishop of Würzburg 1642, Archbishop and Elector of Mainz 1647, Bishop of Worms 1663, †1673.)

- f. 16^b. Arms: Archbishopric of Trier quartering von der Leyen.

- f. 17.

"Sincere et Constanter."

Carolus Casparus Archi Ep̄s. Trevir. Elector.

Anno 1664 3 Aprilis.

(Carl Caspar von der Leyen became Archbishop and Elector of Trier in 1652, †1676.)

- f. 19^a.

Electoral Arms of Saxony.

f. 20. "Sursum Deorsum."

Johannes Georgius Elector.

f. 49. 1664.

Arms: quarterly 1 and 4 Bishopric of Strassburg, 2 v. Fürstenberg, 3 Werdenberg quartering Heiligenberg.

Franciscus Egon Ep̃s Argentinensis.

franz Egon von Fürstenberg, Bishop of Strasburg, 1663, †1682.

f. 51. 16. "Crede Deo Confide Deo, Spes Omnis in Illo" 63.

Arms: Bishopric of Worms quartering Kratz von Scharffenstein.

Hugo Eberhardt Ep̃s Wornat. praepositus Trevirensis.

f. 56^b. Arms of Württemberg.

f. 57. "1664." "Tout avec dieu."

Eberhard H. z. W.

f. 59. 16 "Un bel morir tutta la vita honora" 62.

Arms: Abbey of Fulda quartering von Gravenegg.

Joachimus Abb. Fuldensis S. R. J. P. Archi: Cancell^{us} Augustae p. Germ: et Gall^{iae} primar. J. L. Baro de Gravenegg.

(Joachim von Gravenegg (Graveneck), Prince Abbot of Fulda, 1644-1671.)

f. 71^b. Arms of Baden.

f. 72. "Pro fide et Patria."

9 Aprill 1664.

Leopoldus Princeps Badensis.

f. 79. 1664. 24 April.

Arms of Hessen.

Georgius Christianus Landgravius Hassiae.

f. 84^b. Arms of Holstein.

f. 85. die 4 Octob. A^o 1664.

Johannes Adolphus Dux Holsatiae.

f. 86. 1665. "Fidelitate et Constantia."

Arms (R. ii. 457: S. iii. 22), surrounded by the collar of the Golden Fleece.

Franc Eus^{us} Comes de Petting Aurei Velle^{us} Eques, S. C. M. à Secretioribus Consiliis et ad Catholicissimos Reges Philippum IV. gloriosae memoriae et Carolum Secundum ordinarius orator.

f. 87. Arms: *azure an anchor silver, on a chief gules three golden suns* (not in R.). Robertus de Grance Christianissimo Galliarum Regi a Secretioribus Consiliis nec non ad Comitia Imperii Ratisbona habita Sacra Sua Ma^{est} Plenipotentarius.

{f. 119. Arms (R. ii. 782: S. v. 3).

{f. 120. 16 A. 64. "Christo Duce."

Joannis Joachimus Comes à Sinzendorff.

- | | |
|---------|---|
| f. 122. | "Vive ut Vivas." |
| | Ratisponae 2 Aprilis Anno 1665. |
| | Maximilianus Erasmus Comes à Zintzendorff. |
| f. 123. | Arms (R. ii 1146: S. i. 23) (Zinzendorf zu Pottendorf). |
| f. 158. | den 8 Augti. 1664. |
| | "Nicks onmogelig aber schwer." |
| | Arms (R. i. 181: S. i. 125). |

Phip^e Engelbert Freiherr von Bernsau . . . Churfürstl. Durchl. zu Cöllen
Cammerherr und Oberstl. zu Fus.

In the second half, particularly the last quarter, of the seventeenth century the style and the purport of the Album changed for the worse; the heraldic paintings became fewer and fewer, and those we meet with are mostly of poor execution, and towards the beginning of the eighteenth century they have almost disappeared. Their place in the Students' Albums was taken by representations of their various amusements, feasting, drinking, etc., and the inscriptions became full of obscenities. In the Albums of other classes the heraldic paintings had made room for miniature portraits, and towards the end of the eighteenth century to silhouette portraits of the contributors.

One of the causes of the decline of the heraldic Album was its use by roving adventurers and vagrants as a means of making a living; they travelled through the country with their Albums, approaching and pestering any one they got acquainted with for his autograph and a contribution towards the painting of the arms, which contribution, I need hardly point out, was mostly spent in some other way.

In one of his letters to his son, Lord Chesterfield writes: "Make the same enquiries, wherever you are, concerning the revenues, the military establishments, the trade, the commerce, and the police of every country. And you would do well to keep a blank paper book, which the Germans call an Album; and there, instead of desiring, as they do, every fool they meet with to scribble something, write down all these things, as soon as they come to your knowledge from good authority."

In saying this, he could only have had in his mind the Album of his period; had he been acquainted with those I have mentioned, had he seen the entries of all these learned men, professors and statesmen of the sixteenth century, the "scribble" of Casaubon, Milton, Camden, Galileo, Kepler, Giovanni da Bologna, Rubens, and so many other celebrated men, he would probably have suppressed that sneer.

XII.—*On the Stone Bridge at Hampton Court.* By C. R. PEERS, Esq., M.A.,
Secretary.

Read 16th June, 1910.

THE Palace of Hampton Court is a building to which even the most unimaginative person cannot be indifferent. Built by one of the greatest and most splendid of English statesmen, and completed by one of the most magnificent of our kings, it has always been a royal pleasure-house, recalling rather the intimate private life of our sovereigns than their formal acts of state. In four years' time it will complete its fourth century of existence, and though much of its first splendour has long perished, it remains essentially a royal building; no one could take it for anything but a palace. This being so, its careful preservation is a matter of public interest, and needs no urging in this room, but for this very reason it has been thought well to lay before the Society an account of an important piece of work now being carried out there, namely, the excavation and repair of the moat and the stone bridge which spans it at the west or entrance front of the palace.

The First or Base court, into which the entrance gateway opens, is the work of Wolsey, and remains in great part as he left it. Its western range presents a façade 221 feet long, flanked by projecting wings, an addition to the original design, between which stretched a moat 50 feet wide.

In the middle of the façade is the gatehouse, which in its present form dates only from 1773, and at this point the moat is spanned by the stone bridge which forms the subject of this paper. It dates from 1535-6, succeeding a bridge built by Wolsey some twenty years earlier, which was probably of wood, but no record of it has been preserved. The stone bridge remained in use till the time of William III., when its parapets were destroyed, the moat filled in, and the bridge covered over. The bridge probably disappeared from view about 1691, and though its existence can hardly be said to have been forgotten, nothing more was seen of it till 1872, when in the course of drainage operations part of its east end was uncovered. Nothing more was done at the time, and it was not until last year that a scheme for its complete clearance, after a burial of nearly 220 years, was put into execution. For this we are indebted to Mr. Lewis Harcourt, First Commissioner of Works, to our Fellow, Sir Schomberg McDonnell, Secretary of the Office of Works, and to the late Mr. Fitzgerald, who for some years before his death most ably carried on the work of the Inspectorship of Ancient Monuments;

nor should we fail to record our grateful remembrance of the keen interest taken in this, as in so many other archaeological matters, by our late patron, H.M. King Edward the Seventh.

The bridge is now completely cleared (plate XXXIII). As its name implies, it is entirely faced with wrought stone, and is of four spans, each 8 feet wide in the clear, with cutwater piers 4 feet 6 inches thick, from which the four-centred arches spring. It is 25 feet wide between the splays of the cutwaters and has ten chamfered ribs on the soffit of each arch. One course of the original masonry is left above the arches in places, and on the cutwaters stand the stumps of octagonal shafts which rose above the parapets of the bridge and carried embattled capitals, on which were set stone beasts holding shields of the arms of Henry VIII and Jane Seymour, who became Queen in May, 1536. The masonry is of excellent quality and in very good preservation; the core is of red brick, and the facing stone comes from Headington in Oxfordshire, as appears from the building accounts for September, 1535.

Payd to John Rychemonde of hedyngton quarreman for 542 tonnys of free ston reddyscapolyd and delyv'yd at hedyngton quarre at xijd the tonne.

Also payd to Rich. Aman of the same, quarryman, for 62 tonnys 1 q' of freeston . . . at lyke pryce.¹

That the work on the bridge was begun in this month may be gathered from the accounts, in which the first references to the bridge now occur, as at

p. 353, payment to 14 labourers "standyng in the wat' w' ladyng owt of the same in the fundacyon of the ston brydge goyng in to the place";

p. 371, shovels and spades for the foundations of the bridge;

p. 374, scoops and pails "to lade the wat' owt of the fundacyon of the ston brydge goyng into the place";

p. 363, bricklayers "forseyng up the peers of the ston brydge";

p. 359, freemasons making arches for the stone bridge.

There are similar entries in October, 1535, the freemasons being at work setting the arches, and the bricklayers levelling them; in November is further mention of the arches, and the bridge was probably completed, save for the carvers' work, in this month. The building was pushed on rapidly, and payments for overtime continually occur, the workmen

workyng in theyre owre tymys and drynkyng tymys . . . for the haystye expedycyon of the same.

Next year (1536) under the dates 23rd September-21st October, occur the entries showing the completion of the work.

¹ Misc. Books: Exch. T. R. 243, p. 381.



HAMPTON COURT: THE STONE BRIDGE AS EXPOSED BY EXCAVATION, 1909

Published by the Society of Antiquaries of London, 1910



HAMPTON COURT: THE WEST FRONT AFTER THE EXCAVATION OF THE MOAT

Published by the Society of Antiquaries of London, 1910

Misc. Books: Exch. T. R. 244, p. 75: paid to Harry Corant (of Kingston, carver), for makynge cuttyng carvyng and ffeinesshing of vj beests in freeston of the kyngs and the quenys as a boull a greyhonde a dragon and luncorne a lyan and a pantt' baryng the kynges armes and the quenys standyng uppon the ston brydge before the Kynges gate at xxvj^s the pece.

Also paid to Ric. Rydge (aforsaid) for lyke cuttyng carvyng ffeinesshing and makynge of vj beests of the kynges and the quenys and jall and luncorne a dragon a lyan a greyhonde and a pantt' baryng the kynges arms and the quenys standyng uppon the kynges brydge aforsaid at lyk pryse.

Items for ironwork, "pyns or stayes servyng for the beestes" follow, and for setters working overtime in setting up the beasts, "for the hasty expedycon of the same."

The bridge being finished, the wall bounding the moat on the west was next taken in hand, its foundations being dug in April and May, 1538. This wall has now been uncovered, and except for the loss of its upper courses and embattled parapet, is in good condition. It is of red brick, battering slightly for rather more than half its height, and remains to within a foot of the present ground level. A curious point is that to the north of the bridge it is 3 feet 2 inches thick at the top, but to the south it is 4 feet 3 inches thick, the extra thickness being on the west side. At its south end a winding flight of brick steps leads from a now blocked doorway in the south wing of the main front to the moat, by an arch in the moat wall.

That a moat existed before the building of the stone bridge is evident from the accounts which I have quoted, but there is nothing to show whether Henry made it wider, or followed the old lines. It is quite likely that the site was moated long before it came into Wolsey's hands, when it was the site of a *camera* of the Hospitallers, and Wolsey may have retained the lines of the old moat. At any rate, its course as laid down on the plan I exhibit, a very interesting one belonging to the Office of Works, probably of Wren's time, and showing the block plan of his buildings in an incomplete state, was that which existed in Wolsey's day, and survived in part to modern times, the last section of it having been filled in within living memory. Its water level was considerably higher than that of the Thames, and it was fed by the Longford River from the east. It ran under the buildings at the north end of the west front, the brick arches through which it entered the west moat being now again revealed (plate XXXIV), and must have had a sluice at the south end towards the Thames, for draining off its water, though no trace of anything of the sort is now to be seen in the south wing of the west front. A sluice is however shown in the required position on the banks of the Thames, in Wynegaarde's drawing of 1558. I have already mentioned that the wings at either end of the west front, though of earlier date than the wall of the

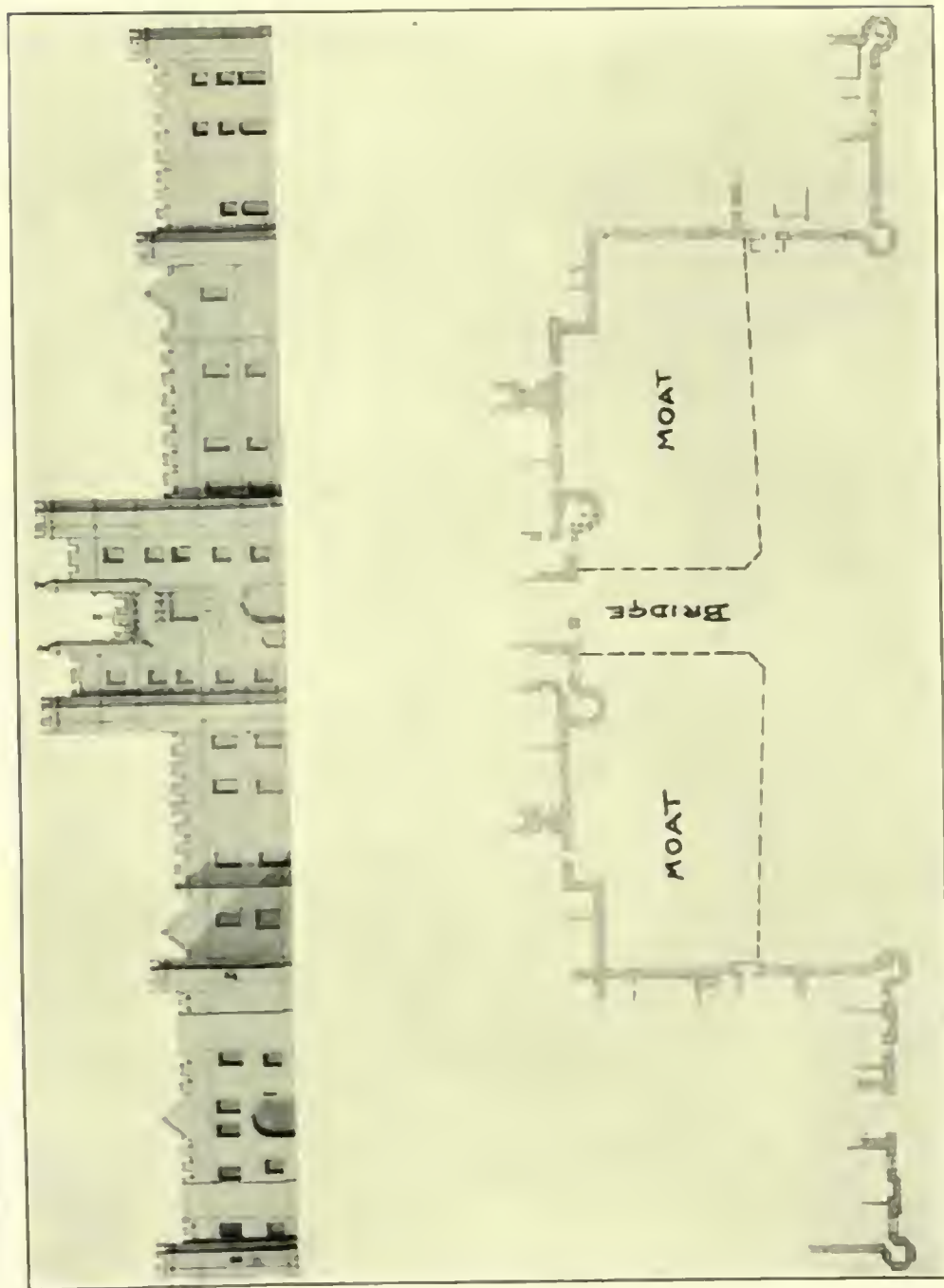
moat, are additions to the original design, so that there may have been in the first instance a more direct communication between moat and river. So much for the historical evidence bearing on the story of the moat and bridge ; the question of their treatment by the present generation must now be considered.

That this is a case where a careful and adequate restoration (I use the word advisedly) is desirable cannot, I think, be seriously disputed. Apart from the completeness of the documentary evidence, enough remains, or has been found in the rubbish which filled in the moat, to leave no doubt as to the character of the destroyed parapets and pinnacles of the bridge. Their actual proportions and certain details of treatment must indeed be decided by our twentieth-century judgement, but of this I trust there will be no reason to be ashamed.

The parapets were embattled (crest and vent, the old builder called it), and a coping stone found on the spot gives their width and section. I reserve for the moment the evidence of old drawings.

The size of the pinnacle shafts is also to be deduced from fragments, and one of the embattled capitals remains as a pattern for the rest. Similar pinnacles, but of more elaborate character, ornamented the Great Hall, and their modern copies are useful in judging of the general effect.

It will be remembered that twelve beasts are mentioned in the accounts, that is, six on each side of the bridge. Of these it is clear that the pinnacles rising from the three complete piers of the bridge accounted for six, and those on the half-piers at either end for four more, leaving two to be otherwise accommodated. The foundations at the west end of the bridge provide the answer to this question. They splay outwards in such a way as to make it clear that the parapets on either side of the approach to the bridge did the same, and the two required pinnacles must have stood at the outward ends of the splays, the parapets stopping against them. An interesting confirmation of this is given by the fact that the spacing of the parapet works out with the most exact symmetry on this basis, but with one "crest" between the outer pair of pinnacles, instead of two as on the bridge. But here a new point comes up for consideration. The west front of the gatehouse is not that for which the bridge was designed, but dates only from 1773, and does not reproduce the original arrangement. What this was may be seen from a drawing made about 1730 (plate XXXV). From this it may be observed that although the bridge was set centrally with the gatehouse passage, the provision of two archways at the entrance of the passage, a wide one for carriages and a narrow one for foot-passengers, made it impossible that either opening should be set on the axial line of the passage. Over the entry was a fine room with a projecting oriel window on the west, and the sixteenth-century architect preferred to set this window over the larger archway rather than on the middle line of the gatehouse. The parapets of the bridge abutted on the gatehouse at a con-



HAMPTON COURT: THE WEST FRONT c. 1731

From a drawing in possession of H.M. Office of Works. The lines of the bridge and moat are added

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venient distance on either side of the two archways, and the two pinnacles, or rather half-pinnacles as they would have been, would be set quite conveniently against the blank wall face on either side.

But when George III. refaced the gatehouse, the need for an unsymmetrical arrangement no longer existed. The bridge had long been buried and the moat filled in, and a wide sweep of gravel led up to the gatehouse, which was accessible for the whole of its width. So the love of symmetry, never more rampant than at that time, was allowed full play. The carriage way was taken through an arch set on the centre line of the gatehouse, and a smaller archway for foot-passengers was provided not on one side only, but on both.

On either side of the main archway half-octagonal pilasters have been added in quite modern times, when the stone vault of the gateway was set up, and come down exactly on the line of the original pinnacles of the bridge, taking up the space once occupied by the two half-pinnacles set against the gatehouse, so that there is now no room to replace them, unless the pilasters are cut away for the purpose.

This, however, is to put into practice a principle which has never yet found acceptance in these rooms, namely, restoration for restoration's sake. The tangible evidences of history pass away all too quickly as it is, and need no help from us to speed their passing. The gatehouse of George III. is a far less interesting and beautiful building than Wolsey's gatehouse which it replaces, but it is sound and serviceable, a very good piece of brickwork, and not without interest as imitation Gothic of a day when Gothic had a merely dilettantist vogue. It is part of the history of the place, and should not be altered without good and cogent reasons. One alteration, indeed, common sense suggests. The small archways on either side of the main entrance, now opening only to the moat, are useless, except to be converted into windows, and there are several other modern doorways in the front and wings which are now equally so.

So that the reproduction of the upper works of the bridge must stop at this point, that only ten of the twelve pinnacles, with their beasts, can be renewed.

To come to the beasts themselves. It will be remembered that in the accounts they are described in two sets of six each, the sets being identical except that the bull in one is replaced by "and jall" in the other. They are the king's and queen's beasts, bearing the king's and queen's arms, and it is not unreasonable to suppose that six of them bore the king's arms and six the queen's. The greyhound, the lion, the dragon, and the bull are clearly the king's beasts, all having been used as his supporters at various times, the dragon standing for Cadwallader, the greyhound for Beaufort, the lion for England, and the bull for Clarence. Now the queen's supporters were a lion with a prince's crown and an unicorn. As to the jall or yale, he is a rare and strange animal partaking of the nature of the heraldic antelope, that is to say,

wearing horns and a large pair of projecting tusks: he varies, however, from the antelope in having rams' horns and a short fluffy tail, and he is *silver bezanty*, that is, white with yellow spots. He is one of the supporters of the Dukes of Somerset, and appears in St. George's Chapel at Windsor on the stall plate of Sir John Beaufort, Earl and Duke of Somerset, *c.* 1440, and is faithfully reproduced in Mr. Hope's beautiful book on the *Stall Plates of the Knights of the Garter*.¹ His appearance at Hampton Court seems to be due to the following cause. Henry Fitzroy, the illegitimate son of Henry VIII, and his father's special favourite, was created Duke of Richmond and Somerset, and bore the yale as a supporter of his arms. He died 22nd July, 1536, or only a few months before the date of the accounts with which we are now occupied. The queen's brother, afterwards the Lord Protector of Edward VI. her son, was in the household of Henry Fitzroy, and himself became Duke of Somerset, with a grant of the queen's arms and supporters, in 1547. The connexion is suggestive, and though I can give no definite evidence on the point, Henry VIII. may have given to Jane Seymour some of his dead son's honours, and the "yale" may have become one of her beasts. But on the other hand it is just as likely that Henry took the yale himself in memory of his son, or as being a Beaufort beast, and an item for making three beasts for the fountain in the inner (now the clock) court goes to strengthen this view:

Also paid to the forsaid Harry Corant for makyng of thre of the kyngs beests in tymbre, and hartt and jall and a boull servyng to stan uppon the fontayne in the Inner Courtt by convencion at 5s. the pece.

There remains the panther. There is an entry of this time for the making of beasts in the garden: a payment to Harry Corant of Kingston, the carver of six of the beasts on the stone bridge, for thirty-eight "of the kyngs and quenys beests in freeston baryng shylds wythe the kyngs armes and the quenys . . . to stand a bowght the ponds in the pondyerd at 26/- the pese": the same price as those on the bridge, and doubtless beasts of the same description. The beasts are given thus: "fowre dragowns sey x lyones: fyve grewhounds fyve hertes: fowre jalls sey x panthers: thre bowlls an fyve iunycornes." The dragons, lions, greyhounds, and bulls are here the king's beasts, and the harts and "jalls" are also so described in the entry just quoted; of the other beasts the unicorns and some of the lions should be the queen's, and it seems likely that the panthers are so also. Luckily there is one more piece of evidence on the point. A number of

¹ Mr. Hope has since pointed out that the yale occurs as one of the supporters of the arms of the Lady Margaret Beaufort, mother of King Henry VII., on the contemporary gatehouses of her two foundations of St. John's College and Christ's College at Cambridge; the yale also forms the device of the original seal of the *custos* or master of Christ's College. The connexion of the yale with King Henry VII. and his son King Henry VIII. is thus clearly established.



HAMPTON COURT: THE STONE BRIDGE AS RESTORED, 1910

The beasts standing on the pinnacles not yet added

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entries of this date refer to the changing of the arms and badges of Queen Anne [Boleyn] to those of Queen Jane [Seymour], and among the list of alterations is the following:

Payd to harry Corant aforsaid for alteryng of 10 lybartts unto the panter, for new making of hedds and the taylls, serving for the Kyng's new garden.

Now the "lybartt" was one of Anne Boleyn's supporters, and it seems reasonable to infer that the "panter" into which it was converted by altering its head and tail, was one of Queen Jane's beasts.

If this chain of reasoning holds good, it seems that the dragons, bull, and greyhounds, and probably the "jall" on the bridge, bore shields of the king's arms, and the panthers and unicorns the queen's arms, while the lions were divided between them. The panels of arms on either side of the west door of the chapel afford a useful contemporary model for these shields.

It remains to consider the treatment of the walls of the moat. They were finished with battlements, on the testimony of the accounts and of drawings, but their thickness at the top, as now existing, 3 feet 2 inches on the north side, and 4 feet 3 inches on the south, is far too great to have been carried up into the battlements. The position of the western pair of pinnacles on the bridge, which seems certain on the evidence which remains, requires that the battlements of the moat should be set on the outer side of the north wall; and it is difficult to imagine that the battlements on the south wall could have been set in any other than the same line, in spite of its extra thickness. The remaining width of the wall, towards the moat, must therefore have been finished with a brick splay sloping up to the battlements, which may have been 12 inches thick like those of the bridge. At any rate, it seems reasonable to make them correspond with those of the bridge, in the absence of evidence to the contrary. These battlements had, as it seems, a "skew in freston" below them, as have all the battlements on the palace walls, that is, a splayed stone course capping a thickening of the wall. The entry referring to this is dated July, 1536, a somewhat puzzling date, as from the other entries already quoted it appears that the foundations of the walls of the moat were not laid till 1538. But any one who has worked at old documents or old drawings will know that a complete harmony of evidence is seldom attainable; it may be that only the start of these walls, adjoining the bridge, was built in 1536, and the rest undertaken after an interval.

I have mentioned the evidence of old drawings. In the case of Hampton Court there are only two to which I need now refer, one by Antony Wynegaarde, of 1558, and the other by Dirk Stoop, showing the bridal procession of Charles II and Catherine of Braganza approaching the palace. In both the battlements on the moat and bridge are shown, but neither show any pinnacles on the bridge,

though Dirk Stoop decorates palace and moat alike with small obelisks rising from the battlements, which certainly were never there. Other obvious inaccuracies occur in both drawings, notably the setting of the window over the entrance in the middle of the gatehouse, and not to one side as it actually was. And many small details, which still exist, are entirely left out, so that it is not well to base anything more than a general argument on such points.

There is only one more matter to which I need now draw your attention, namely, the moat itself. Its bottom is about 14 feet 9 inches below the present ground level, and it may be supposed to have had about 6 feet of water in it in ordinary circumstances. What has been done at present is to put down some 2 feet of soil on the bottom and to sow it with grass seed. This is now sufficiently grown to show the effect of such a treatment, and it will be seen that the dignity of the palace front is enormously increased by the exposure of the sloping bases of the walls. I think that there will be but one opinion as to the debt which we owe to the present heads of H.M. Office of Works, for the manner in which the work has been carried out.

I must not here omit to express my thanks for the great help which I have received from various members of that office in the preparation of this paper, especially from Mr. Baines, who has placed at my service a long set of extracts from the building accounts, which have thrown much light on several doubtful points. And I also have to thank our Fellow, the Rev. E. E. Dorling, and our Assistant Secretary, Mr. Hope, for their very valuable assistance on questions of heraldry; and Mr. L. F. Salzmänn for verifying at the Record Office the extracts from the building accounts.

XIII.—*Excavations about the Site of the Roman city at Silchester, Hants, in 1909.*
By W. H. ST. JOHN HOPE, *Esq., M.A.*, and MILL STEPHENSON, *Esq., B.A., F.S.A.*

Read 23rd June, 1910.

IN submitting to the Society our twentieth and final report on the excavation of *Calleva Atrebatum*, it may be pointed out that for the first time our work during the past season has lain altogether outside the Roman town. We were able in 1908 to bring to an end the excavation of the whole of the 100 acres within the wall, but, as was then foreshadowed, there still remained to be examined the outer defences and the ditch encircling the wall itself. This formed the work of 1909.

It was begun on 21st May, and carried on as uninterruptedly as the weather would allow until 20th November, under the direction of Mr. Mill Stephenson and Mr. J. Challenor Smith, to whom all praise and thanks are due for the patient care and time they have devoted to the work.

The excavations were begun just outside the south-west point of the town by cutting a section through the ditch there and continuing its line directly outwards to and through the outer entrenchment and its ditch, a distance of nearly 1,000 feet. A second cutting through the outer work was made at some distance eastwards of the first, and three others on the north-west of the town, but as all yielded similar results it was not thought necessary to make any more.

The rest of the investigation was devoted to the ditch or ditches encircling the wall. These were cut at a number of points along the north, west, and south sides of the town, in front of the north and south gates, and so far as was possible before the west gate also.

It will be more convenient to deal first with the sections cut through the outer defences.

These remain in a more or less perfect state all round the western half of *Calleva*, but on the east there are no definite remains, possibly through their coinciding with the Roman line of defence. On the north and west the remaining lengths of the bank stand about 6 feet above present level, but on the south there are places where the bank is considerably higher, with a corresponding deeper and wider ditch.

This ditch has been cut in the thick bed of gravel, which, with occasional layers of sand, underlies the whole site, and the excavated material thrown up on the inside to form a continuous bank (fig. 1). Along the west side the ditch was 40 feet wide and 8 feet deep, with a more or less flat bottom about 4 feet across. Owing to the unshifting nature of the excavated material the bank, where undisturbed, practically retains its original contour, but the sections cut did not reveal any traces of palisades or other wooden defences; the outer layers had, however, been much disturbed by a prolonged growth of trees and bushes.

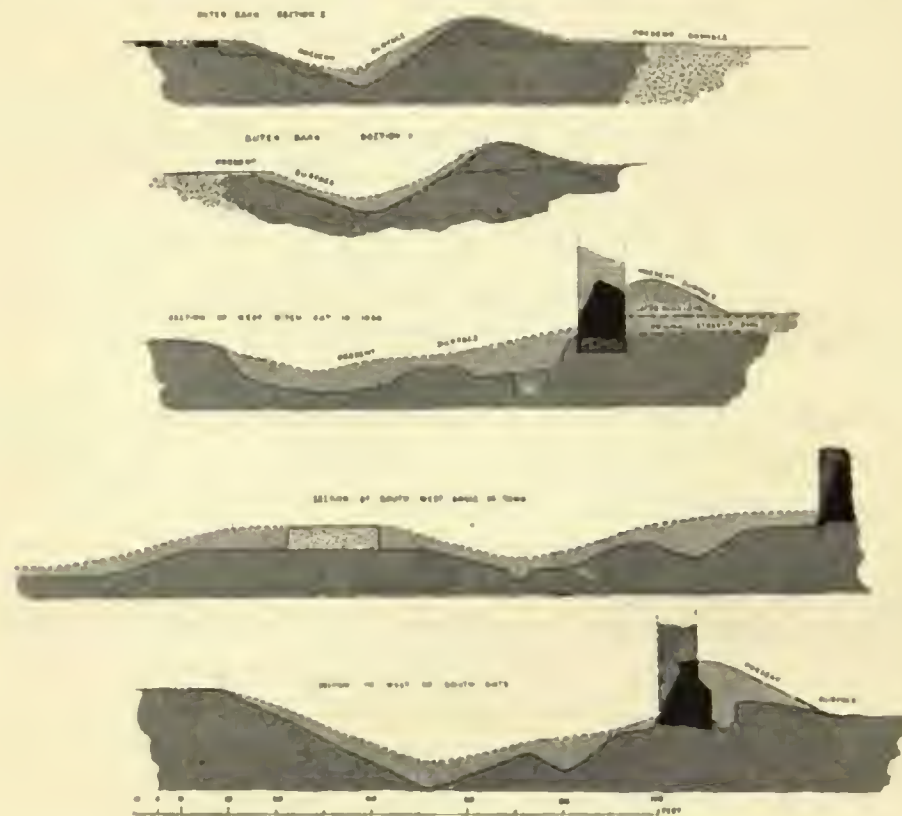


Fig. 1. Sections of banks and ditches at *Calleva*.

The sections were also singularly barren of traces of the people who wrought the work. Nowhere in the bank was anything found to give any indication as to its age, and a few fragments of rotten pottery were all that was found in the ditch.

It has generally been assumed that the entrenchments outside the walled portion of the site are of earlier date than the town defences, but the only clue to the date of the outer bank is afforded by the discovery, a few years ago, by our colleague, Mr. J. B. P. Karlake, in the higher section to the south-west, now called Rampiers, of a number of burials of the Roman period, consisting of urns with cremated remains (see *post*).

It may therefore be taken for granted that the outer works are in all probability pre-Roman, but whether they belong to the Late-Celtic period or even to the Bronze Age there is so far nothing to show. The area they enclosed was a considerable one, with a fair supply of water, and for the most part easily defensible.

The sections made at the base of the town wall on its north, west, and south sides revealed an order of things totally different from the simple continuous ditch and bank of the outer works.

During the excavations of 1896¹ a trench was cut completely through the ditch on the west side, just to the south of the newly discovered lesser west gate (see fig. 1). At this point there was no ledge or berm at the foot of the wall, but

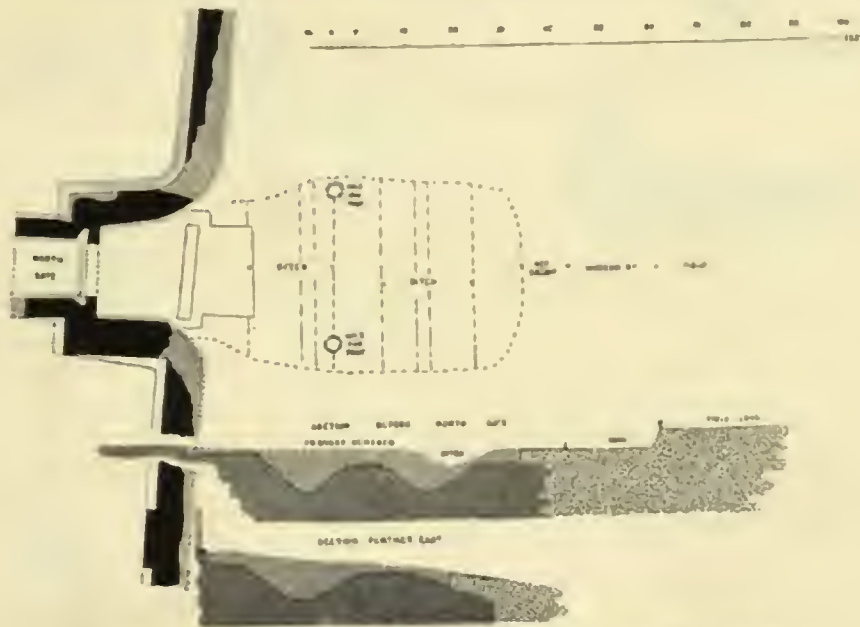


Fig. 2. Sections of the ditch outside the north gate of *Calleva*.

the ditch began almost abruptly at the plinth and consisted of a cutting 26 feet wide, for the most part flat bottomed. There then intervened a sort of broad bank $9\frac{1}{2}$ feet across, and beyond that a somewhat irregularly cut second ditch about 40 feet wide. The total width was about 80 feet, with depths varying from 9 feet in the inner ditch to over 12 feet in the outer. The top of the bank was about 7 feet below the ground level.

Two sections on the north side which were made last year, one in front of the north gate, the other some little distance to the east of it, show the same arrangement of two ditches separated by an intermediate bank, but in both cases there seems to be a distinct berm from 8 to 10 feet or more in width at the foot of the wall.

¹ *Archaeologia*, lv. 427, fig. 1.

A number of sections cut on the western side of the town (see fig. 3) apparently disclosed a similar state of things, but a more careful study of them makes it doubtful whether a berm formed part of the original arrangement. As a matter of fact a little consideration will show that it was impossible, and that such a normal state of things existed at first as in the case of the outer defences.

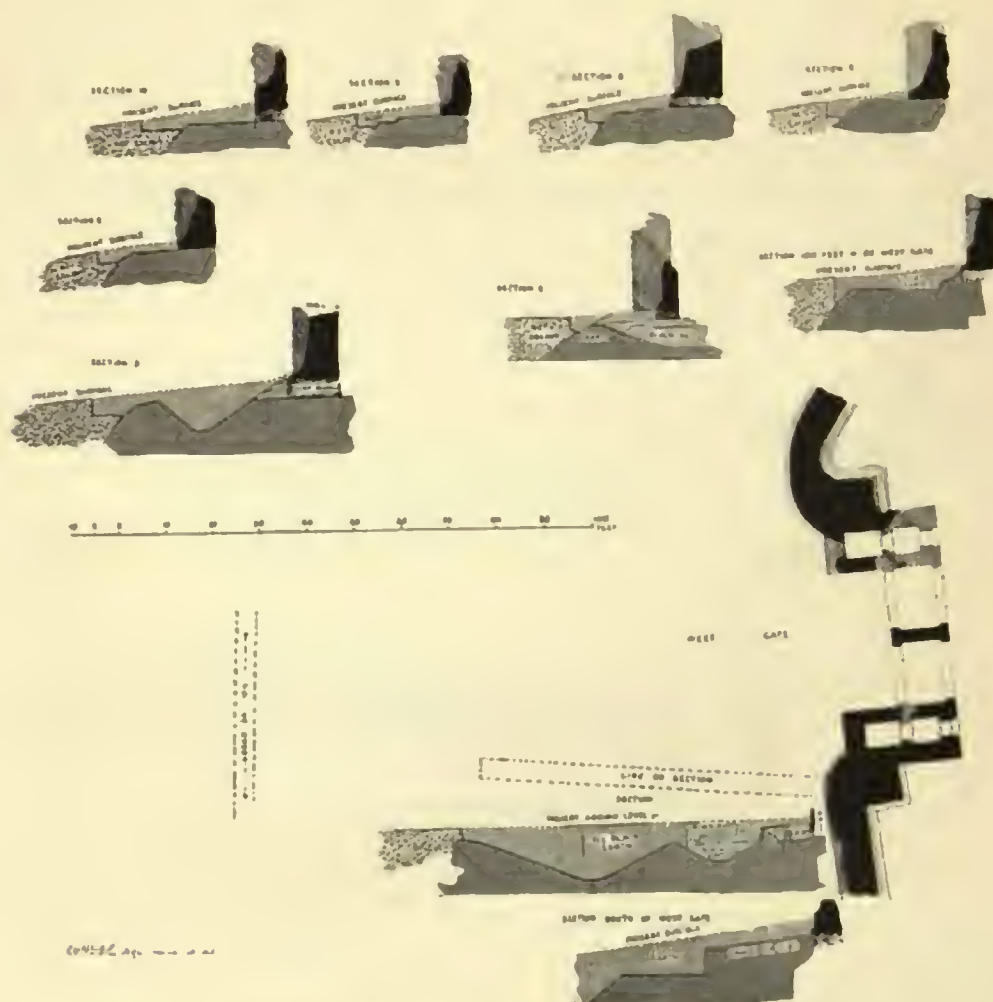


Fig. 3. Sections of the ditch outside the west wall and west gate at *Calleva*.

Now there are good grounds for assuming that when the Romans first made choice of this site for their town, they occupied the whole of the area then enclosed by the outer bank and its ditch, and at an early period, perhaps during the second half of the second century, they built the *forum* and the adjoining *basilica* in the middle of the town at the intersection of the roads that traversed it from east to west and north to south. The few houses of importance that were likewise built seem to have been irregularly dispersed round this centre. But this original area seems to have been deemed too large to be defended

without a very considerable force, and it was decided to confine the buildings of the growing town within an enclosure that could more easily be dealt with. A new line of defence was accordingly drawn within the older earthwork. Towards the south-east a considerable length of the latter seems to have been utilized in connexion with the new defences, but elsewhere the line ran parallel to the older work at such a distance from it as to render the outer bank useless for offensive operations.

According to the normal manner of things the new line would be, and clearly was, formed by cutting a continuous ditch of no great size and throwing up the excavated material on the inner side to form a bank. As in the case of the outer works the ditch was cut entirely in the gravel, which everywhere underlies the superficial vegetable layer.

At no great interval of time after the completion of the new inner line of defence the mound of it seems to have been cut back, and in its place was built a continuous ring of wall. This was $9\frac{1}{2}$ feet thick at the base, lessening by sets-off within to $7\frac{1}{2}$ feet towards the top, and its height could hardly have been less than 20 feet. It was composed throughout of a flint-rubble concrete, with bonding courses at intervals formed by lines of flat stones instead of the more usual bricks or tiles, and was faced outside with dressed flints with a chamfered stone plinth along the base of the wall. Behind the existing remains of this wall, which still form a nearly complete ring, there is a continuous mound or bank.

Now it has already been pointed out that the ditches of both the outer and the inner lines of defence are excavated entirely in the gravel beds, and it follows as a matter of course that the thrown-up banks should be gravel too. But in the case of the inner work the bank against the later wall, wherever cuttings have been made in it, has been found not to be of gravel at all, but of earth containing fragments of Roman pottery. It clearly therefore could not have come out of the ditch. But what then has become of the gravel that unquestionably did? The answer seems a simple one when once it is given, but it is only lately that our newly cut sections have suggested the key to the puzzle. Briefly the answer is this, that the gravel of the inner bank, owing to its sufficiently fine character, was used up while the wall was being built, in the concrete construction of which the wall is so largely composed, and thus we get a massive wall taking the place of the gravel bank.

In many places the gravel bank evidently did not furnish sufficient material for so thick and lofty a wall, and a further quantity was obtained by cutting down the scarp of the ditch which ran along the foot of the rising construction. This then is the explanation of the apparent berm, the top of which, as the sections show, is in several cases some distance below, instead of on a level with the plinth of the wall.

The cutting down of the scarp of the ditch so reduced the value of the ditch itself that it was evidently regarded as useless. It was accordingly filled up with any loose material that was handy and a new ditch cut further away from the wall. This outer ditch is accordingly the only one of which there are outward signs to-day, since its partial silting up is due to ordinary natural causes and not the result of a deposit of rubbish which effectually effaced the ditch first constructed. The material excavated from the later ditch was thrown outwards and spread over the field.

This explanation, if it be found worthy of acceptance, effectually accounts for most of the features observable in our sections, with the exception of one

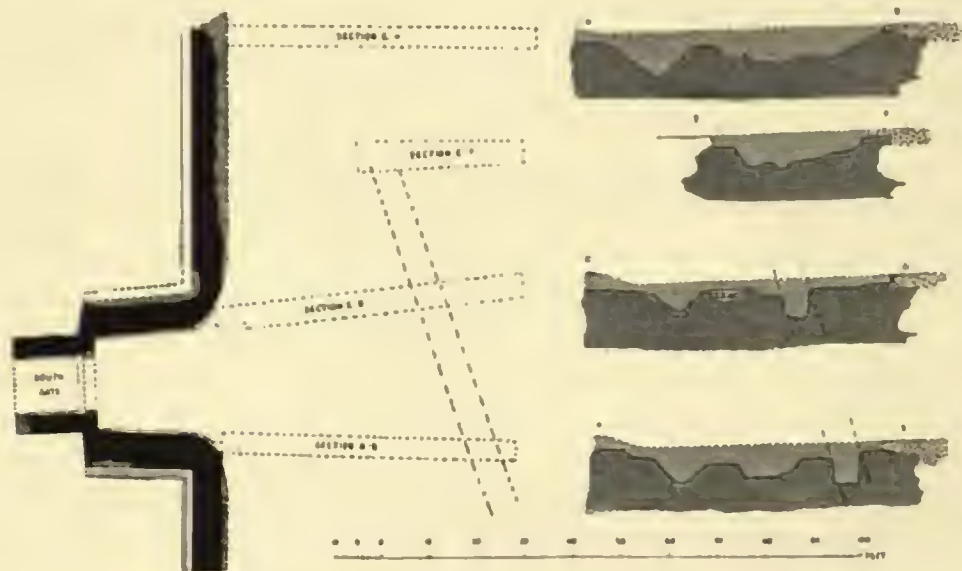


Fig. 4. Sections of the ditch outside the south gate of *Calleva*.

curious case on the west side (fig. 3), and those on the south to the east of the south gate (fig. 4). These latter show clearly enough the V-shaped ditch next the wall, but the outer ditch seems to be unfinished, as though some physical reason made its completion unnecessary. Now a very little further on towards the east we have found that the wall is built upon a foundation of piles, and for a considerable space hereabouts the ground in Roman times, as it is even to-day in wet seasons, must have been more or less boggy. It was therefore probably deemed a sufficient defence to the town without involving the cutting of the ditch, but no further sections have been cut to test or prove this. It may, however, be pointed out that the sections before the south gate have disclosed an interesting feature in connexion with such a theory, in the form of a deep ditch with vertical sides, originally protected and held up by camp-shed-

ding, running obliquely across the roadway that led up to the gate, and on the east side this ends in the incompleted outer ditch. How these ditches were bridged before the south gate nothing has come to light to show. But in the case of the north gate several curious features were revealed. This has, in the first place, on the outer margin of the confined space before the gate itself formed by the turnings in of the wall, a shallow sinking $2\frac{1}{2}$ feet wide and about 20 feet long, and only some 5 inches deep, like a chase for a thick piece of wooden planking. Beyond it there extends forward about 11 feet a gravel platform 20 feet wide with ends sloping downwards and in front of a transverse ditch some 20 feet wide, which had been filled up with earth. In the counterscarp of this ditch, about 3 feet down, was a large loose stone beneath which lay a crushed human skull. In the same counterscarp, and nearly 32 feet apart from centre to centre, were two small pits built round with flints, which were apparently the sockets for two stout vertical timbers. They were from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet in diameter, and about 4 feet deep from the top of the bank north of the ditch. In the ditch itself were also the stumps of a number of posts or stakes from 18 inches to 2 feet apart. Beyond the bank was a second ditch nearly 25 feet wide, almost filled up down the middle with large flints and earth, and towards the south with white gravel. The north part had been disturbed by a modern drain.

Owing to the removal long ago of the big posts that once stood in the inner ditch it can only be suggested that they may have had something to do with a wooden drawbridge, but how this was worked, or which ditch it spanned, is a matter of speculation.

The single trench we were able to cut alongside the southern margin of the road that ran through the west gate revealed much the same section as the others on this side of the town (see fig. 3). That is to say, a filled-up ditch at the foot of the wall, and a second V-shaped ditch beyond, filled up with black earth. The filling up of the inner ditch, on the other hand, consisted of layers of earth, greenish sand, clay, and gravel, upon which was a hard surface like that of a road. This same surface was found in another cutting some 300 feet further south, and there are grounds for believing that it formed an actual roadway from the great double western gateway to the lesser single-arched gate to the south discovered in 1896.

In any case it will be admitted that the ditch about the town was a poor and mean thing, and it is likely that it was cut more with a view to its being a hindrance to a foe bent upon bringing up engines of war against the wall than as a defensive work. No doubt the townsfolk relied much upon the passive strength of the wall itself, as the Romans undoubtedly did at *Gariannonum* (Burgh-by-Yarmouth), *Rutupiae* (Richborough), and *Anderida* (Pevensey).

The bank of earth that ought to have been gravel which lines the remains

of the wall has long been a puzzle, but it may perhaps be accounted for in this wise. There can be little doubt that concurrently with the building of the wall the town was laid out, by streets intersecting at right angles, into a number of rectangular spaces or *insulae*, within which rose the various buildings. These streets were of course at first covered with the original surface layer of vegetable soil, which had necessarily to be removed. Instead of being spread over the adjacent *insulae*, which seems the simplest way of disposing of it, this surface layer seems to have been carted away and thrown up as a bank against the newly built wall.

That the wall and its ditches enclose an area considerably smaller than that first occupied is proved not only by their peculiarities of construction, but by the finding in the ditches themselves of rubbish pits of similar character to those of which so many have been found within the wall. And it is quite clear from their positions that these pits without the wall were sunk before the wall and its ditches were projected. One for example was found in 1896, close to the wall, in the section then cut near the lesser west gate. Another was found last year just outside the north gate, and two others respectively north and south of the west gate. All of these pits have yielded considerable quantities of pottery, and this has a special interest since it may be regarded as unquestionably of earlier date than the wall and ditches.

But the most important evidence in this connexion is afforded by that which came to light in cutting section no. 5 outside the west wall (see fig. 3). In this case the gravel layer usually met with at the foot of the wall rested upon a layer of black matter, which increased in depth towards the wall and eventually passed beneath it. Mixed with the black matter were a certain amount of gravel, bits of red-glazed ware and other pottery, and bones, including a skull and other parts of the skeleton of a horse. In fact there seems to have been at this spot a small pond into which the dead horse had been thrown and which in course of time had got silted up and eventually built over. The effect upon the wall was disastrous: for the lower part for a thickness of $2\frac{1}{2}$ feet had settled down about 4 inches from the upper layers, over the filled-up pond. The weakening of the wall at this point may account for so much, about 5 feet, of its outer face having been removed, perhaps after a fall. Some of the red-glazed ware bears potters' stamps and other evidence by which it can be approximately dated, and thus for the first time we are confronted with material for forming some idea of the date of the wall.

But on these and other points dealing with the pottery those who have had the opportunity of examining it must now tell their tale.

W. H. ST. J. H.

The various sections cut through the city ditches yielded but little in the way of pottery or objects and in this respect proved unsatisfactory. Practically nothing was found in the V-shaped ditch and but little broken pottery in the outer or saucer-shaped ditch. Such fragments of pottery as were found were all of the usual types occurring within the walls. No coins or objects were found except at the gates and in section 2, which produced a small broken bronze bow-shaped brooch.

Sections 4 and 5 (fig. 3) on the west side of the wall disclosed the existence of a great black deposit, so were joined up and carried below the foundation of the wall. A cutting was then made in the bank on the inner side and also carried down below the foundation. This proved that the wall itself had been built over an old ditch or pond, the filling up of which was a rank black deposit extending $4\frac{1}{2}$ feet below the foundation, the total depth from the present top of the wall to the bottom of the deposit being 10 feet 2 inches. This black deposit yielded much broken pottery, various objects, and numerous bones. Amongst the objects were a bone needle or bodkin which had been broken and roughly mended by being banded with a narrow strip of lead, several bone pins, and one of bronze, pieces of lead and bronze, metal slag, and half a wooden writing tablet. The bones included dog, pig, and horse; of the latter a fine skull and other bones were extracted from under the wall itself. The pottery included forty-five pieces of red-glazed ware, mostly plain, two bearing the stamps CRACIS. M and LVPPA, several rims of saucers with the so-called ivy-leaf pattern, one with a rivet, and four figured fragments. The other pieces consist of rims, etc. of a hard blue-grey ware, probably local, others of a reddish paste, fragments of *amphorae*, common black ware, and much coarse black ware in the paste of which is incorporated calcined flint, one rim of a large vessel showing rope markings. Similar fragments of pottery were found in the mound itself, and again in section 11 on the north wall, but with the addition of several pieces of the so-called Castor ware and one piece of New Forest ware. A *denarius* of Septimius Severus was found in section 11 on the inside of the wall in the mound and close to the wall at a depth of 6 feet from the top of the mound.

The cuttings in front of the north gate (fig. 2) produced but little pottery, a few coins of late date, Constantine period, and a human skull crushed out of shape by the weight of a large flat stone, apparently a bonding stone from the wall, which lay on the top of it. Just to the east of the gate and close to the wall was found a pit, 20 feet in depth, with a puddled or plastered bottom. This pit was circular, with a diameter of 5 feet at the top gradually diminishing to 3 feet at the bottom. It was cut through the gravel for 11 feet 10 inches and through clay for 8 feet 2 inches. Much broken pottery was found all through, and at

9 feet from the surface two whole pots and a portion of a twisted glass rod about an inch and a half in length.

The sections on either side of the west gate showed the ditches to be continuous, but the approach to the gate could not be examined owing to the modern roadway. Pits were here found cut in the inner or V-ditch, one on the south and one on the north side of the gate. The one on the south side was cut on the inner slope of the V-ditch at 5 feet 6 inches from the ground level; it had a diameter of 4 feet and was about 4 feet in depth, but only began to show when the side of the ditch was reached. It was filled with rough broken pottery, mostly of the coarse black ware with calcined flint in the paste. A large iron brooch was also found here. The pit on the north side, which was 8 feet west from the rounded angle of the wall, was also cut in the slope of the V-ditch, and was 3 feet 6 inches in diameter, with a depth of 9 feet. It proved much richer in objects and pottery, and yielded two whole pots, three bronze brooches, a bronze surgical(?) instrument, a bronze handle, four broken bone pins, a piece of lead, a fragment of millefiore glass, two saggars, one much vitrified, and a white marble object shaped like a brick. Much broken red-glazed ware was also found, including a good many riveted pieces and the following potters' names, CARILLI. O, SECVNDVS, IVSTI. M, OF. CRESTI, also a large piece of an early figured bowl (shape 29) of Lezoux ware, a cup of late first or early second century, a dish with round moulding inside, late first century, and figured ware of early second-century date.¹ A small fragment of marbled red-glazed ware was also found here. The coins found in the trenches at the west gate were again all of late date, the earliest being one of Carausius, the rest of the Constantine and later period. The trenches at the south gate produced the usual amount of pottery, but none of special interest. A silver coin of Trajan, a second brass of Antoninus Pius, about two dozen coins of the Constantine and later period, mostly in very bad condition, and a round bronze enamelled brooch were found in the various sections.

The cuttings through the great outer earthwork in Rampiers Copse were equally unsatisfactory as regards objects. The first cutting produced practically nothing except a few fragments of pottery, all of which may be regarded as surface pieces, as the mound is riddled with badger and rabbit holes. The second cutting was also unproductive, but on its northern face nearly at the base was found a hole ringed with flints, the floor covered with burnt ash, and filled with broken pottery, no two pieces of which would join together. The pottery was examined by Mr. Reginald Smith, who was of the opinion that it showed British influence from the cordons and profiles, and was probably of the first century, except one red base, which may be imitation Gaulish(?) of the third century. On

¹ From information kindly given by Reginald A. Smith, Esq., F.S.A.

the southern face of the mound were indications of a cremation, a platform having been cut in the side of the mound for the reception of the body. On this platform was a layer of wood ashes in which were calcined bones and numerous fragments of bronze burnt out of all shape. The sides of the mound were cut down in the hope of finding an urn, but without any result. The ditch outside the mound, although carried down to a depth of 11 feet, yielded nothing but a few fragments of coarse sandy pottery, very decayed and rotten.

The three sections through the outer earthwork on the north-west side of the city were unproductive; a few fragments of pottery were found on the edges and a few in the ditch, but none call for special remark.

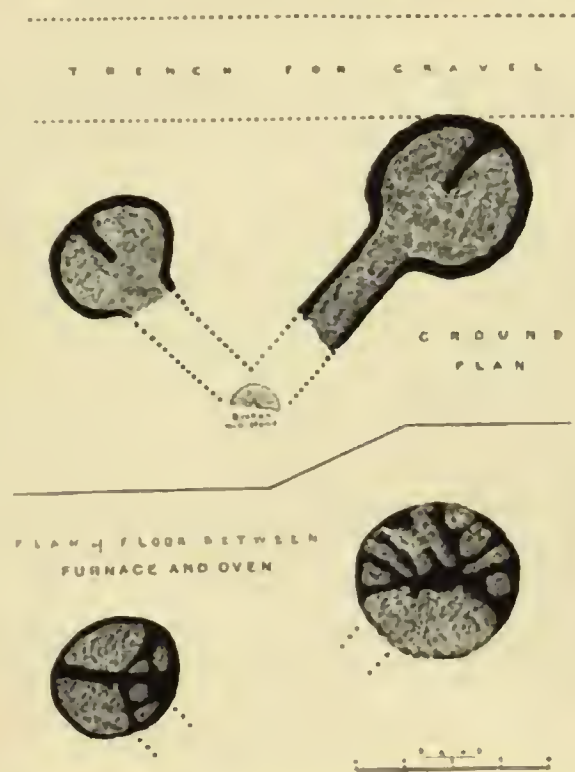


Fig. 5. Plans of potters' kilns found to the north-east of *Calleva*.

In conclusion it may be added that the wet season of 1909 rendered the work of excavation in the ditches and mounds very difficult; as fast as they were dug out they filled with water, which gradually undermined the sides and caused a collapse.

In November, 1906, the tenant of a field on the north-east side of the city, being in want of some gravel, dug a hole in his field, and during the work struck the edge of a hard substance. On hearing of this, Mr. J. Challenor Smith and I offered to have the gravel dug for him, the result being the discovery of two potters' kilns (figs. 5 & 6). Mr. Clement Reid had already warned us that potteries

would be found in this direction, if in any, owing to the presence of suitable clay. The kilns, which were about 2 feet below the present surface level, are of very rough workmanship but of the usual construction, being sunk in the gravel with the walls, etc. made of clay. In the clay can still be seen the impress of the grass and ling which were used to bind it together.

Kiln no. 1 was roughly circular in shape, with an outside diameter of 3 feet 6 inches, and an internal one of 2 feet 8 inches, the thickness of the outside walls being 5 inches. It consisted of a floor, a flue for heating, and a diaphragm or table supported on a pedestal and pierced with some nine or more holes of irregular shape. When first exposed a portion of the side of the dome remained *in*

Kiln no. 2.

Kiln no. 1.



Fig. 6. Potters' kilns found to the north-east of Calleva

situ, but it gradually crumbled away. The dome was composed of a mixture of clay and broken pottery, faced outside and strengthened by the addition of broken pot lids, evidently wasters kept for this purpose. The floor of the kiln gradually dropped towards the mouth of the flue, the height of the aperture through the wall to the flue passage being 15 inches, only 1 inch below the table. The flue extended outwards for about 2 feet 6 inches, the width of the passage being 11 inches, and the thickness of its walls about 2 inches. It had been domed throughout, but only a very small portion remained intact. The passage was covered with black wood ash, and traces of similar ash extended some feet beyond. The table was 16 inches above the floor level, and was of an average thickness of about 6 inches. It was supported on a pedestal which

faced the entrance to the flue, thus allowing the free use of the ash-rake. The table itself was pierced with nine or more holes, but was very irregular and much broken in places. The holes varied considerably in size, being from 4 to 12 inches in length, and from 3 to $5\frac{1}{2}$ in width. The total height of the kiln was about 3 feet 4 inches.

Kiln no. 2, which was nearly at right angles to no. 1, was more of an oval shape, being 2 feet 10 inches in length by 2 feet 2 inches in width. In construction it resembled no. 1, but was much more broken and damaged. The height from the floor to the table was 20 inches, the inside width of the flue 10 inches, and the thickness of the flue walls about $2\frac{1}{2}$ inches. The thickness of the outside walls and of the table corresponded with those of no. 1.

A considerable quantity of broken pottery was found in and around the kilns, but much was surface stuff such as is found anywhere on the fields within a radius of a quarter of a mile from the walls. In kiln no. 1 were found four wasters of a hard blue-grey pottery, as well as the greater portions of two dishes, sundry pieces of basins, and many fragments of broken pot lids similar to those used to strengthen the dome, all of which were of a sandy texture. The blue-grey pottery is such as may be made anywhere where suitable clay exists, but the sandy texture ware appears to be peculiar to Silchester. Not much of this pottery has been found on the site, probably owing to its friable nature, but perfect specimens of the dishes and bowls are in the Silchester collection in Reading Museum.

Kiln no. 2 produced only one perfect vase and one dish, both found in the furnace flue. The dish is of a coarse red ware, much resembling the stand for a modern flower-pot. The vase is of a yellowish-brown paste, and is slightly ornamented on the upper portion.

The only other objects found were a bronze bow-shaped brooch and half a millstone.

Thanks are due to Mr. J. Challenor Smith, not only for his assistance in the excavation, but also for an excellent series of photographs illustrating the progress of the work.

M. S.

Note on Discoveries in the outer Entrenchment. By J. B. P. KARSLAKE, Esq.,
M.A., F.S.A.

The outer entrenchment was made use of as a burial ground, probably by the native British inhabitants of the poorer class. In that portion of the entrenchment situate in Rampiers Copse, burials seem almost continuous on the inner slope of the mound, and, as this year's section shows, they also occur on the outer face.

Those excavated are usually similar in character, although, owing to the disturbance of the soil by badgers and rabbits and those who have for many generations endeavoured to dig these latter out, in most cases they have not been preserved in any way intact.

The following is a description of a burial excavated in 1900, and may be taken as typical of the rest:

The original surface-indication consisted of a group of flints, a small heap of six or seven, and among them a portion of a square glass bottle. At some 3 feet 4 inches below was a cinerary urn of grey ware and distinctly Roman type, obviously a waster from its irregular shape. The urn stood upright, and as found was without cover. It was partly filled with sand and incinerated bones.

From 6 inches to 1 foot below the urn, and extending for a distance of 6 feet 4 inches south of the urn and over a space 4 feet 6 inches wide, were scattered large nails; some fused out of shape, others with portions of wood still adhering to them, the surrounding earth being burnt and discoloured and containing much charcoal.

At a point 6 feet 4 inches south of the urn and 11 to 16 inches below its level a number of hobnails, some single, some in "threes", were found in a patch about 6 inches square.

Among the burnt earth were the charred teeth of ox and remains of a jaw-bone and a few fragments of coarse black ware.

From the surroundings of this burial it was clear that the method of burial had been as follows. The lower end of the bank had been dug away until a face about 4 feet 6 inches was left. Against this perpendicular face a fire of logs was made, and on this the corpse extended on a wooden bier and clothed was laid. When combustion was completed the fragments of bone were collected and placed in the urn in the position occupied by the head of the corpse and the earth thrown back until the original slope of the mound was restored and all trace of fire and charcoal buried beneath it.

Another feature in connexion with the outer entrenchment may be mentioned. When cutting a section through the mound and ditch some time since, a strong spring of water was encountered at the foot of the mound. This had no doubt caused some trouble to the original builders, as it necessitated some form of retaining wall. This was constructed in the escarp of the ditch of two lines of wicker hurdling 12 inches apart, the wicker-work being supported at intervals of about a yard by stout stakes of split oak and alder, the space between the wattling being rammed tight with clay puddle.

The wattling was composed of uprights of willows about 1 inch thick and 4 inches apart, and longitudinally similar sticks were twisted at 4 inch intervals. And into this framework thin osiers, many with the leaves and twigs remaining, were entwined.

Besides this retaining wall a sort of tank, 8 feet long and about as broad, was formed to retain the water of the spring by a similar construction of clay and wattle. This had at an early period been thrown down by a fall of soil from the bank above, and on the wicker-work was embedded a fragment of red-glazed ware, which goes to show that the decay of the structure took place in Roman times.

The western entrance to the outer work was at the site of the field gate to the north end of Rampiers. It was protected by a crescent-shaped outwork. The original roadway passed round this outwork and ascended by a fairly steep slope over the inner embankment.

This road was 10 feet broad, formed of a mixture of red gravel-stones and clay. It was later buried under the Roman road which led from the south-west gate. This road is 30 feet broad, and to accommodate it the inner and outer earthwork had been levelled down to form an even grade by which the road descended to the lower ground, showing clearly that at the date of the construction of the Roman road no importance was attached to the outer entrenchment as a defensive work.

The space between the outer entrenchment and the wall was occupied, certainly during the latter period of the existence of the city, by native habitations unequally placed and approached by gravel paths.

The usual type of hut seems to have been round, about 14 feet in diameter, with a central hearth of flints or large tiles. Round or in front of the fire a basin-shaped hole was dug, about 2 feet deep and 3 feet 4 inches in diameter, and lined with clay; this was no doubt used to contain the hot ashes and acted as a sort of oven. The houses were constructed of clay and wattling, but except for some post-holes and a line of loose flints nothing now remains.

There were, besides the round huts, rectangular houses, but little trace is left to form any detail plan of the size. In the case of these houses an angle or

corner seems to have been occupied by the fire, the house being built up at this point with flints, no doubt to prevent a conflagration, and in one case distinct traces of a clay and wicker chimney or flue about 3 feet 4 inches in diameter were found among the débris of the hearth.

In conclusion it only remains to point out that the Silchester Excavation Fund, having done its work, is now closed, and will shortly be wound up. Had the opportunity been afforded it the Executive Committee was anxious to include in its investigations the so-called amphitheatre on the north-east, with the possible remains of a *nymphaeum* close by, and to examine generally the ground between the inner and outer defences to the north of the town, but the necessary permission to do this could not be obtained from the owner of the land, Mr. J. H. Benyon. By way of contrast to this, our only refusal, may be mentioned once more the unhampered facilities so freely and courteously accorded by both the late Duke of Wellington, and his successor the present Duke, who fortunately owned the whole of the area we have been able to excavate. We have also to express our cordial thanks to Mr. Edward Cooper and Mr. Thomas Lush, successive tenants of the land, for the kind way in which they all along have met our wishes. For leave to excavate last year in the ground beyond the Duke's property on the west and south-west we desire to express our indebtedness to Mrs. Thorold.

XIV.—*The Discovery of Prehistoric Pits at Peterborough*, by G. WYMAN ABBOTT, Esq.; and *the Development of Neolithic Pottery*, by REGINALD A. SMITH, Esq., B.A., F.S.A.

Read 30th June, 1910.

1. *Prehistoric Pits at Peterborough.*

THE series of relics exhibited to the Society come from an early settlement at Peterborough, dating from a time when flint was in general use, perhaps before the introduction of metal, at least among the poorer inhabitants of the country. The site is a promontory rising out of the Fens and lying on the north-east side of the town. The river Nene joined the Fens about half a mile to the south-west of the site, which is only a few feet above sea-level, and was almost surrounded in times of flood. So far as can be determined at present, the extent of the settlement is several acres, but the ground has not yet been moved except on the west side, where unfortunately no observations were taken. There were no surface indications of human habitation, and no burrows noticed on the promontory or in its neighbourhood. The subsoil is gravel, fine and coarse, varying in depth from 8 to 10 feet. The top 18 inches of gravel, underlying the soil, is reddish brown, mixed with a reddish loam, which sometimes occupies natural pockets 3 to 8 feet deep, cutting down through the gravel and at times reaching the cornbrash below.

The discoveries have not been systematically made, but occurred during excavations for sand and gravel; hence many relics have been destroyed or lost by the workmen, who considered potsherds of no interest or value. During my enforced absence from the site many pits have no doubt been obliterated, and no record made of their position, character, or contents.

The settlement consisted of many pits sunk in the reddish loamy gravel and in the underlying gravel stratum, the depth ranging from 2 to 6 feet and the diameter from 3 to 14 feet. The shapes are irregular, but the majority are practically circular, the smaller pits having steep sides and flat bottoms, and the larger being fairly shallow and flat-bottomed or else deep and V-shaped (fig. 1). The average example would be a circular excavation about 10 or 12 feet in diameter at the top, $3\frac{1}{2}$ to 4 feet deep, and saucer-shaped

like the ordinary hut-circle, such as those on Hayes Common described by Mr. Clinch.¹ In two cases I observed that the saucer-shaped depression was in close proximity to a V-shaped pit some 6 feet deep: they were within 5 feet of one another, but otherwise not visibly connected in any way. If contemporary, the larger may have been a dwelling and the other a store-pit. When found together the former usually contains a dark layer of ashes about 4 inches from the bottom, and from 2 to 4 inches thick: this deposit and a quantity of burnt stones found near it indicating the site of a hearth.

The other common type of pit is steep-sided and flat-bottomed, $4\frac{1}{2}$ feet in diameter and $2\frac{1}{2}$ to $3\frac{1}{2}$ feet deep. All the pits found contained remains of charred wood, and many had burnt pot-boilers, flint flakes, and scraps of animal bones; but nothing of more definite character has been found in the majority, though the form is exactly the same as those that produced the potsherds, and the dark soil is common to both.

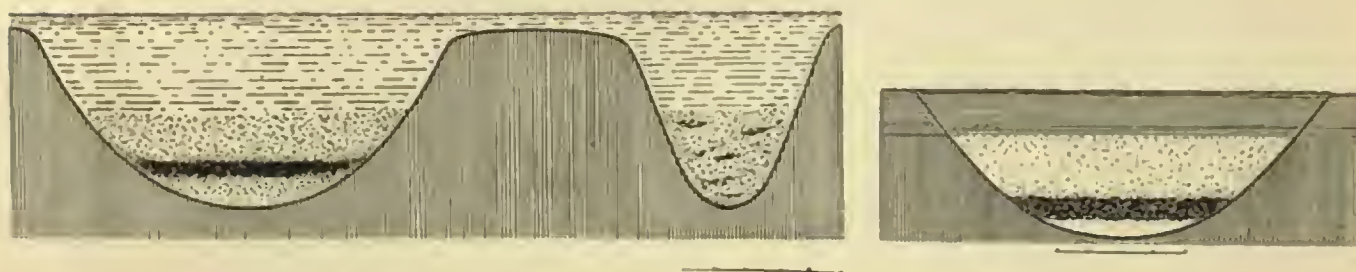


Fig. 1. Diagrammatic sections of pits, and pit no. 1, Peterborough.

The most interesting pit (no. 1) lay at the south-west limit of the settlement, on the edge of the plateau. It seemed to be circular with a diameter of about 12 feet, the depth in the centre being 4 feet. The sides sloped gradually inwards and were of the usual saucer-section. Part of the pit had been destroyed before its nature became apparent, and valuable evidence was no doubt lost, but it was seen to be filled with blackish earth down to 8 inches from the bottom, where it gave place to a greyish black layer that seemed to be composed of decayed animal or vegetable matter. The line of division was not very definite or regular. Below the grey stratum was a hard gravel floor resting on but distinct from the undisturbed gravel. Throughout the black and grey filling were scattered small pieces of charred wood and ashes, also pottery fragments, though these were chiefly found at the base of the black layer and in the greyish matter below. All the fragments had evidently been thrown in that condition into the pit, or been thoroughly broken and mixed up before the pit

¹ *Journal of Anthropological Institute*, n. s. ii. (1899), 124.

was filled in. Scattered throughout the pit were also many flints, which may be classified as follows:

- | | |
|---|--------------------------|
| 1 small barbed arrow-head | |
| 3 roughly made saws | |
| 10 small knives | } (pl. XXXVIII, fig. 1). |
| 35 scrapers, $\frac{1}{3}$ inch to $1\frac{1}{2}$ inches long | |
| 20 cores, possibly slingstones | |
| 300 or more unworked flints. | |

Several pieces, both worked and unworked, bore traces of contact with fire. They were all made from nodules obtained in the local gravels, and are mainly greyish or black. There is a marked absence of patination, all being dull as if recently chipped, in contrast to those found on the surface in this locality.

The only bone implement found was a pin 4 inches long, made from the bone of a pig. There was also a single clay slingstone¹ of rough material baked red, $1\frac{1}{4}$ inches long and $\frac{3}{4}$ inch in diameter (fig. 2). Pot-boilers to the number of 300 were found, the majority being imperfect owing to the action of heat. Most were of quartzite or sandstone pebbles from the gravel, and varied in size from 2 to 4 inches. Several lumps of baked clay, mixed with quartz or flint grit, may have been prepared for pot-making, or possibly formed part of the wattle-and-daub walls hardened by fire. In the black soil were also several small lumps of soft greenish buttery clay, containing no extraneous matter. Both in the grey and black filling were scattered bones of birds and horse, red deer, pig, and many smaller animals, the larger being all split for the extraction of marrow. Many were charred or burnt, and several had been gnawed by animals. Nutshells also occurred in the grey layer at the bottom of this pit.



Fig. 2.
Clay sling-bolt,
Peterborough. †.

Most of the potsherds belonged to the so-called drinking-cup or beaker class, but the vessels varied considerably in size, and some attained extraordinary dimensions, the largest that can be theoretically restored being over 9 inches wide at the mouth, and about 11 inches in height. These fragments are, as usual in this type of ware, highly ornamented, the designs consisting of squares, bands, lozenges, and triangles of incised and dotted lines, the paste being coarse and gritty or fine and hard, but always comparatively thin.

Several small fragments of neolithic pottery were found, but exclusively in

¹ These seem generally to date from the Early Iron Age, and many were found at Glastonbury. Examples are also known from Wilts. (*Wilts. Arch. Mag.* xxvii. 287); Highfield, Salisbury, and Hod Hill, Dorset; also Mt. Caburn, Lewes (*Archæologia*, xlv. 467, pl. xxv. fig. 47); and an angular pattern has been found at Wonerish, Surrey (*Surrey Arch. Collns.* xxii. 199).

the greyish soil at the bottom of the pit no. 1. The paste is usually rough, hard, and gritty, mixed with ground flint, which shows up against the black or dark brown body. The fragments belonged to a round-bottomed bowl ornamented on the upper part, like one found in the Thames at Mortlake, and now exhibited in the British Museum. Similar fragments were found in a long barrow at West Kennet, Wilts., and are in the same collection, and I myself found a vessel of the same character about 100 yards from the site of the pit-dwelling just described.

There were also two fragments of brownish yellow ware, the paste fairly soft, which belonged to the rim and side of a second round-bottomed neolithic pot. The ornamentation consisted of a double herring-bone line, and extended also along the top edge.

Several fragments of a hard black paste were ornamented with lines of impressions of the finger-tip, and were peculiar in having the lip turned inwards (fig. 9), the ornamentation also extending to the rim.¹

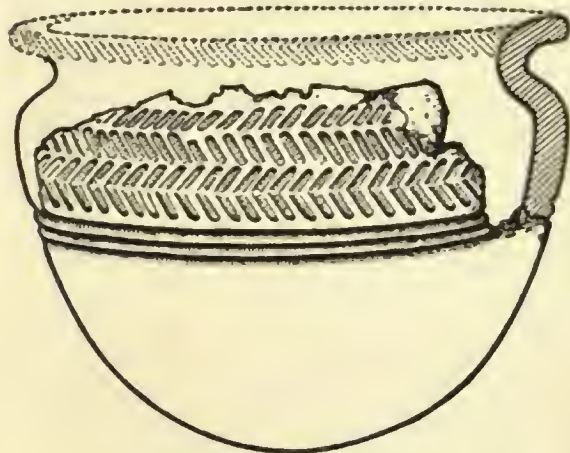


Fig. 3. Neolithic bowl, Peterborough. $\frac{1}{2}$.

The round-bottomed neolithic bowl exhibited (fig. 3) has been already mentioned as found in the vicinity. It lay in the black filling of one of the larger excavations before described. Nothing was noticed in actual association with it, but flint flakes and scraps of pottery (including a piece of a thumb-marked drinking-cup) were found just below the top soil in close proximity to this pit. The vessel is of hard gritty ware with large pieces of flint incorporated. It is $\frac{1}{2}$ inch thick in places, and of a brownish black colour. The rim is lost, and the decoration consists of a double line of herring-bone pattern impressed in the clay before baking by means of a notched stick or bone, in the characteristic neolithic manner. It closely resembles in shape the Mortlake specimen (pl. XXXVII, fig. 3); and in colour, material, and ornamentation another vessel found in the Thames at Putney and now in the Edinburgh Museum.

So far as can be ascertained from fragments found in pit no. 1, the beakers varied in size considerably; the largest being about 11 inches high, about 9 inches wide at the mouth and practically the same across the shoulder, and the smallest (pl. XXXVII, fig. 1) about one-third these dimensions. The larger vessels of this type were usually of coarser paste, ornamented in what seems to be the earlier

¹ This type is mentioned by Lt.-Gen. Pitt-Rivers in his *Excavations in Cranborne Chase*, iv. 163, and by Mr. J. R. Mortimer in his *Forty Years' Researches in Yorkshire*, 103.

style, viz. finger-nail and punch markings, though the finest beaker style is also represented, consisting of zones of oblongs, triangles, and lozenges of incised and dotted lines. On some fragments, as again at West Kennet (fig. 7), both styles occur together, the herring-bone pattern and punch-marks being thus shown to have been used by the same potter. A semi-circular punch-mark, produced by impressing a half-cylinder of bird's bone or reed, is found on one of the Peterborough pieces (fig. 4, D), and seems to be of the rarest occurrence elsewhere. The oldest design appears to be the herring-bone, made with a small notched piece of wood or bone, the notches being small and fine, but the impressions somewhat roughly made: this pattern is characteristic of the round-bottomed bowls.

The next pattern in point of time seems to have been made with the finger-nail or a punch, and consists of rows of impressions with intervening plain zones, or covering the entire surface (pl. XXXVII, and fig. 8). Though found occasionally on the neolithic bowl, this seems to belong more properly to the earliest beakers of the transition period.

The last series of designs occurs on the fully developed and highly ornamented beakers which have been specially studied by the Hon. John Abercromby (see *post*); and no patterns that could be assigned to a subsequent period occurred in the Peterborough pits.

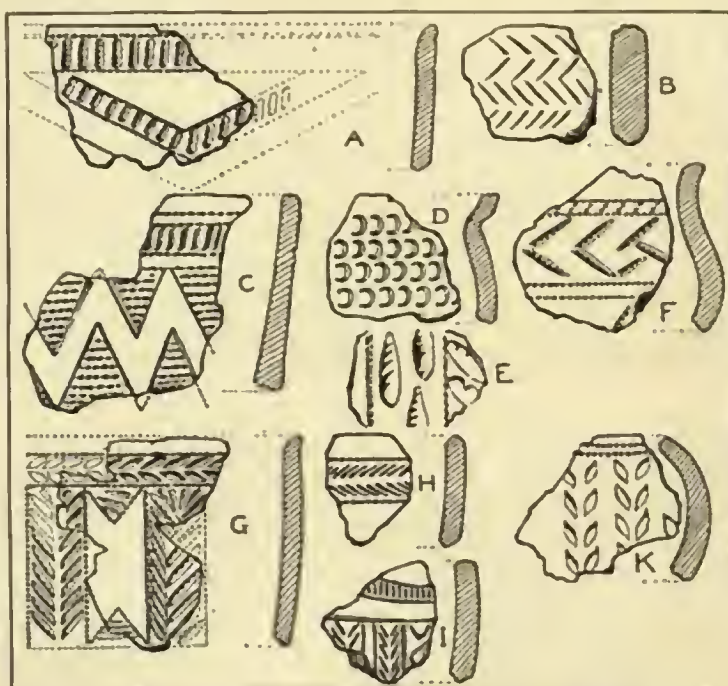


Fig. 4. Patterns on drinking-cups, Peterborough. $\frac{1}{2}$.

From these potsherds the date of the settlement can be fixed at the end of the neolithic period, when the first invasion of which we have any tangible evidence was taking place. The new-comers introduced the beaker or drinking-cup, and landing on our eastern shores, conquered and drove inland the aboriginal dolichocephalic population. Possibly some of the roughest beakers (fig. 8), which retain neolithic designs such as the finger-nail patterns, were produced by some who remained on the east coast as the slaves of the conquerors; and this is all the more likely if, as is likely, pot-making was woman's work.

The position of the Peterborough pits on the first high ground overlooking the Wash is quite in keeping with this theory; and the type of beaker is quite



Fig. 5. Fragments of drinking-cups, with sections, Peterborough. 4.

as early as any found elsewhere in Britain. Other specimens of the same early type have been discovered on islands in the Fens, one from Ramsey, for instance, being in the Peterborough Museum. One of the chief results of an examination of the Peterborough pits is undoubtedly the proof afforded that the drinking-cup was not exclusively for funeral purposes, but was also intended for domestic use even when highly ornamented and carefully finished. Further, the distribution of the sherds in the pits showed that the latter were merely kitchen-middens, and the vessels were broken and scattered before they came into the pits in the first instance.

Two excavations of the smaller kind were found about 100 yards north of pit no. 1, about 3 feet apart and containing fragments of three drinking-cups embedded in the black filling. They were all highly ornamented in the usual style and of a fine though somewhat soft red paste; but nearly all were destroyed by exposure for some months to the weather.

To the north-east of these pits a complete cinerary urn was found upright 2 feet below the surface in a small hole. The contents consisted, so far as I can ascertain, of the black loamy soil that filled the excavation. The urn is of the usual type, 7 inches high and $4\frac{1}{2}$ inches across the mouth, of red paste, well baked and ornamented on the lip with cord pattern. No cremated bones were found in it nor elsewhere on the site, so far as my information goes; and there was no outward and visible sign of a burial.

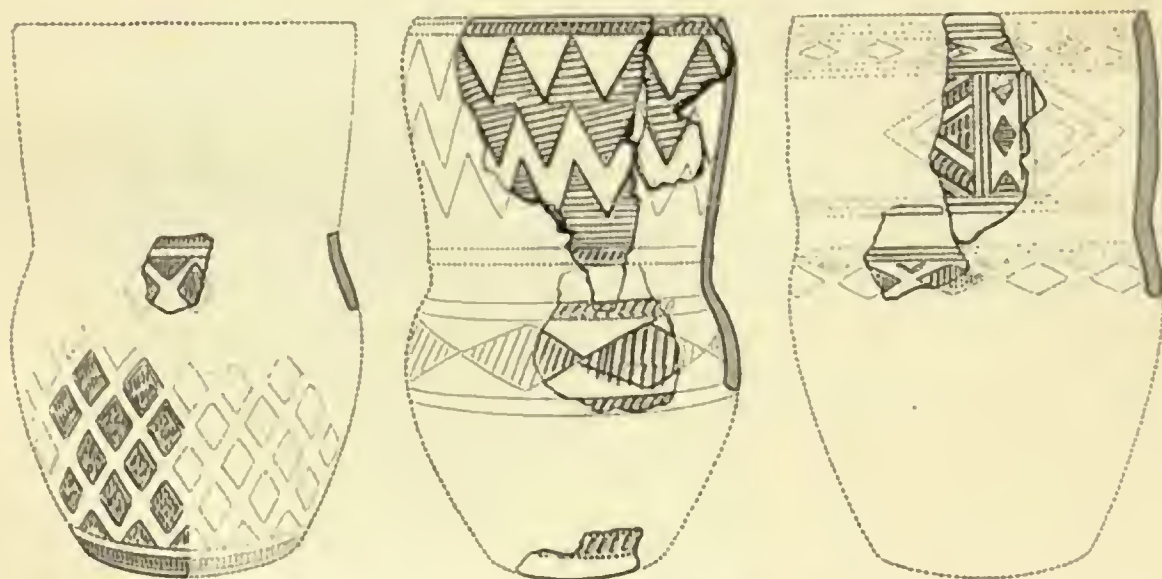


Fig. 6. Fragments of drinking-cups, with sections, Peterborough A.

II. *The Development of Neolithic Pottery.*

THE outstanding feature of Mr. Abbott's discoveries at Peterborough is the occurrence in close association of two classes of pottery that can be clearly distinguished. The rounded base has long been regarded as a leading characteristic of neolithic pottery in Scotland, and the exploration of cairns in Arran by Dr. Thos. Bryce¹ leaves little doubt on the subject. But perhaps the closest parallel in that area to the particular form under discussion was found in the north chamber of a cairn at Achnacree, Argyleshire,² without any other indications of a burial. In the south chamber was found a somewhat similar bowl, with cylindrical body and rounded base, recalling the profile of an Irish specimen in the British Museum (pl. XXXIX, fig. 1). An attempt will be made in what follows to show that this similarity is not accidental; and it is the Peterborough find, in conjunction with certain isolated discoveries, that suggests an origin for the large class of Bronze Age sepulchral pottery known as "food-vessels".

There has recently been added to the national collection a thick and heavy bowl of blackish pottery that was found in the bed of the Thames at Mortlake (pl. XXXVII, fig. 3), below a thin calcareous layer that seems to have sealed up some early deposits of flint and human bones as well as pottery. The height is 5.1 in. and the body is practically a hemisphere 6.9 in. across, with walls 0.3 in. thick, surmounted by a deep hollow moulding and a spreading lip; ornamented on the top and outer face of the rim with transverse incised lines, and below the shoulder with a band of herring-bone pattern, the impressions being made in the clay before firing with a twisted cord or thong, and the transverse markings being sometimes very fine and closely set (fig. 3). The lower part of the bowl is left plain, but this was not invariably the case in vessels of this character. A fragment found in association is of gritty paste with a fine black surface and grey core. The maximum diameter would be 10 in., and the height (if in the same proportion) 7.4 in., the body being 0.4 in. thick at the shoulder. There is cord pattern in parallel lines outside the lip and within to a depth of 1 in., also on the shoulder, below which are two rows of finger-nail pattern between double rows of corded chevrons.

It is important to add that on the same site and beneath the same calcareous seam was found a large and practically complete specimen, 9.6 in. high, of a well-known drinking-cup type (pl. XXXVII, fig. 2), called *a* by Mr. Abercromby,

¹ *Proc. Soc. Ant. Scot.*, xxxvi. 135, with figs.; see also *Journal of Anthropological Institute*, 1902, new ser. v. 398.

² *Proc. Soc. Ant. Scot.*, ix. 414, pl. xxiv. fig. 2 (7 × 4 in.). The other type (fig. 1) resembles one from Bute figured in vol. xxxviii. 48, fig. 20 (diam. 5 in.). Cf. Anderson, *Scotland in Pagan Times: Bronze and Stone Ages*, 271.



Fig. 1. Drinking-cup, Peterborough. $\frac{1}{4}$



Fig. 2. Drinking-cup, from Thames at Mortlake. $\frac{1}{8}$

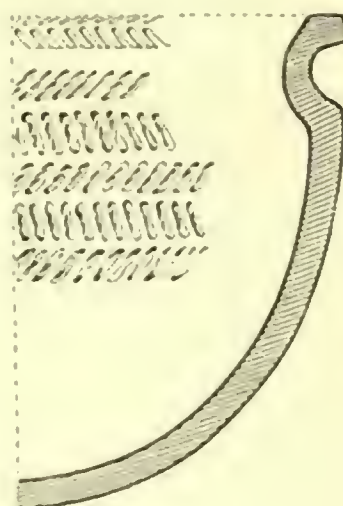


Fig. 3. Neolithic bowl with section and details, from Thames at Mortlake. $\frac{1}{4}$

and another of his type β , 5.3 in. high, covered with horizontal cord-markings. The association is rendered practically certain and all the more important by the discovery of type α and neolithic ware in considerable quantity in the Peterborough pits. Though on both sites there may have been some interval of time between the two classes of ware, it is now clear that they were made and used by dwellers on the same spot, living apparently under the same conditions; and an explanation of the presence of two distinct but practically contemporaneous types in the same area now seems to be possible. It is first, however, necessary to bring together examples of the thick and coarse blackish ware that can be safely classed with the Mortlake bowl and the lower finds in the pits at Peterborough.

The accompanying illustrations of two perfect specimens brought up in a net from the Thames at Mongewell, near Wallingford (pl. XXXVIII, figs. 2, 3), are from photographs kindly supplied by Mr. G. W. Smith, who has the originals in his collection and states that one is $4\frac{3}{4}$ in. high and 6 in. in diameter, the other $3\frac{1}{2}$ in. high and 5 in. in diameter. Four specimens therefore, at least, are known from the Thames; and there is sufficient evidence to prove that the type is not confined to the South of England.

Our Fellow Mr. John Ward found in Rains Cave, Longcliffe, Derbyshire,¹ enough of a round-bottomed bowl to determine its original appearance and dimensions, and gives the following description: "Diameter about $8\frac{1}{2}$ in.; paste coarse and reddish, hand-made, variable in thickness, but generally thicker at the bottom than elsewhere. From the obvious discoloration of the lower parts externally and traces of smoke, we may safely conclude that it was used as a stew-pot. The shape is admirably adapted for this purpose. When placed in the embers of a fire its rounded shape would prevent fracture, and in this respect it is an anticipation of the flasks and dishes of the chemists. The paste of these hand-made vessels was mixed with crushed calc-spar, which is common in the district and scarce elsewhere; from which we may infer that they were made in the locality." The illustration shows the rim alone ornamented, and on the same plate, fig. 4, is a fragment of a vessel with parallel cord pattern, the paste being thick and blackish. As an indication of date it may be mentioned that wheel-made pottery and iron were found in this cave, but no bronze, which is all in favour of the rougher pottery being neolithic.

An interesting find very much to the point is due to Mr. J. R. Mortimer,² who for nearly half a century has been excavating in the East Riding of Yorkshire. Under one end of a true long barrow at Hanging Grimston was found

¹ *Journal of Derbyshire Arch. and Nat. Hist. Soc.*, xi. (1889), 39, pl. ii. fig. 3. The height would be about 6 in.

² *Forty Years' Researches*, 103, pl. xxxi. fig. 248.

a subterranean dwelling that had evidently been destroyed by fire; also four shallow round-bottomed vessels of plain ware with diameters of 12 to 13 in. and depths varying from $3\frac{3}{4}$ to 6 in. The shapes are not identical with the type under discussion; but the discovery of four domestic specimens, evidently earlier than a long barrow that was not wholly explored but probably contained burials, is certainly instructive. In the same Ridg, Dr. Greenwell¹ has found round-bottomed bowls very similar to those from Scotland, but not decorated and of palish brown clay, anything but heavy. He also mentions the occurrence of dark-coloured plain pottery, presumably the remains of domestic vessels, as common in the Wold barrows. These are, however, so fragmentary that no reconstruction has been possible, though from the curvature Dr. Greenwell concludes that many of the vessels were round-bottomed.

A curious pottery vessel referable to the same period was found by Bateman in an interesting barrow opened in 1843 near the village of Biggin, Derbyshire. The find has since been published in another connexion by Hon. John Abercromby,² but the original illustration³ gives a better idea of the vessel than the recent photograph. It was found on a small heap of neolithic flint implements in association with a human skeleton, the knees drawn up and the skull having an index of 74.3 (dolichocephalic). The cylindrical neck broadens out below to a projecting fillet, beneath which is a hollow moulding and a hemispherical body. The ornamentation consists of bands of short incised lines and herring-bone pattern, the whole being 4 in. high and $2\frac{1}{2}$ in. in diameter at the widest part. Bateman commented on its novel and unprecedented shape, and drew particular attention to the absence of metal here in any form.

The late Gen. Pitt-Rivers had a shrewd suspicion that much of his no. 1 quality British pottery was neolithic. Wor barrow, which he definitely assigned to the long-barrow period, produced a number of long skulls, and some pottery fragments⁴ that evidently belonged to round-bottomed bowls exactly corresponding to that from Mortlake (pl. XXXVII, fig. 3). More came from barrows at Handley in the same neighbourhood, and his comments on the ware should be read in this connexion.

The most significant find of this class of pottery in England was published by this Society in 1860, with copious illustrations.⁵ Under the auspices of the Wiltshire Archaeological and Natural History Society, Dr. Thurnam opened a chambered

¹ *British Barrows*, 143, fig. 91 on p. 107.

² *Man*, 1906, no. 44, fig. 5.

³ Thomas Bateman, *Vestiges of the Antiquities of Derbyshire*, 43. Most of the find is now in the Sheffield Museum.

⁴ *Excavations in Cranborne Chase*, iv. 67, pl. 261, fig. 17; see also fig. 10, and pl. 246, figs. 2-7; pl. 298, fig. 8; pl. 304, fig. 7; remarks on p. 163.

⁵ *Archæologia*, xxxviii. 405.

long barrow at West Kennet, near Avebury, and found skeletons with elongated skulls, flint implements, and three heaps of pottery, specimens of which are now in the British Museum, and include four rim fragments of different vessels with the characteristic hollow moulding below the lip, of thick ware ornamented in the usual way with the finger-nail, impressed cord, pointed stick, etc. (fig. 7). Two fragments figured by Thurnam¹ are quite distinct from the rest, of black and brown colour, and obviously of later dates. One is part of a black pottery dish with several round holes in a flat base, the original dimensions being $5\frac{1}{2}$ in. diameter at the mouth, and 4 in. at the base, the wall being 2 in. high. A com-

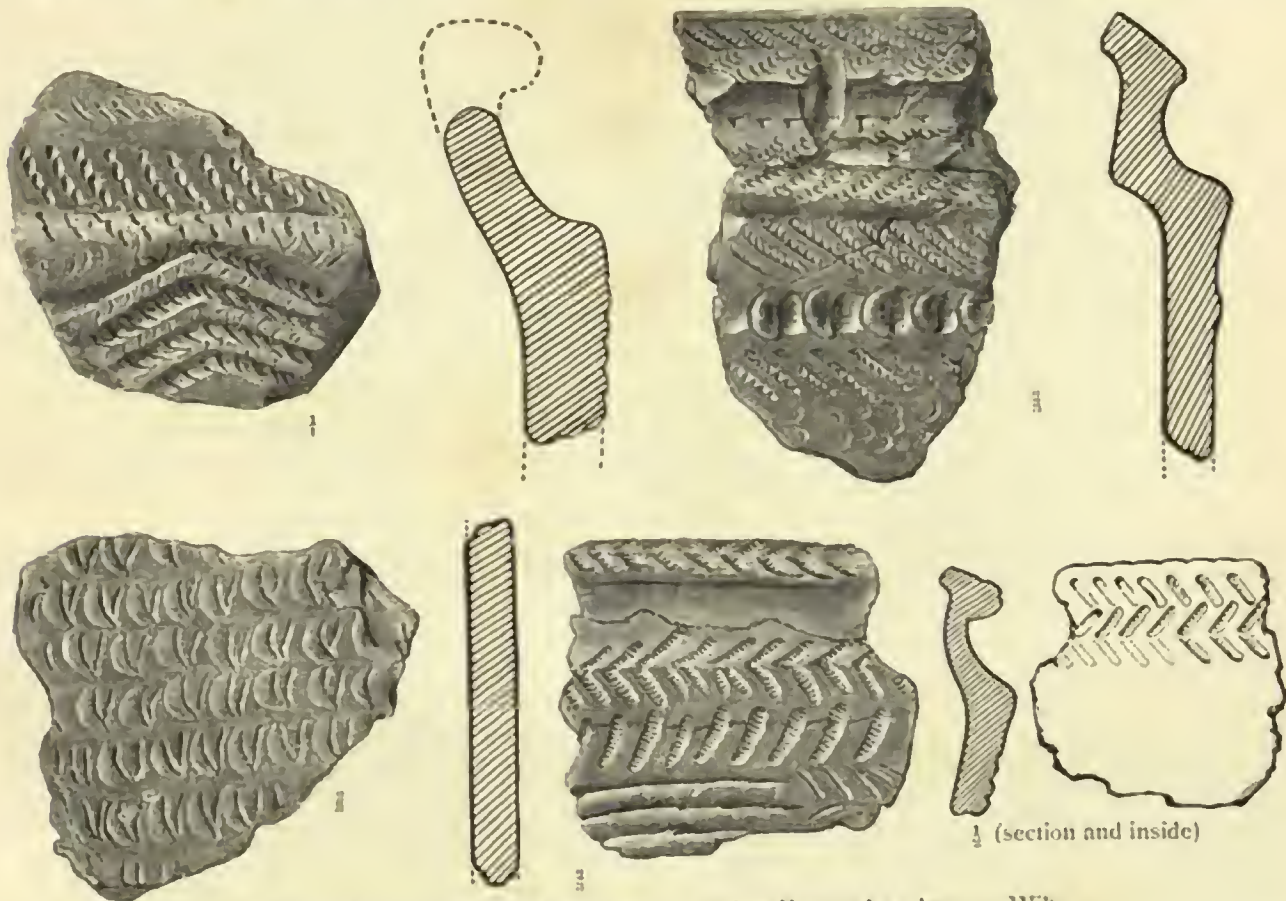


Fig. 7. Neolithic fragments, with sections, West Kennet long barrow, Wilts.

plete specimen in the British Museum from Châtillon, Switzerland (doubtless from a Bronze Age lake-dwelling), has nearly vertical sides, but dimensions in the same proportion: $7\frac{3}{4}$ in. at the mouth, and $2\frac{1}{4}$ in. high. These vessels were probably used like the modern colander, but the original form of the second exceptional fragment cannot be determined, though the incised lattice pattern of double lines on a burnished black surface points to the Early Iron Age or the Roman period.

¹ *Archæologia*, xxxviii. 415, figs. 8, 9.

Though the barrow was opened at a later date, it is worthy of remark that the contents were but partially disturbed, as was proved by the condition and order of the skeleton, and by the defined character of the layer of black matter immediately above them. Not a trace of burnt bone or other sign of cremation was met with, and there was a complete absence of metal or anything implying the use of it. Dr. Thurnam continues:

The quantity of coarse native pottery was very remarkable. At first it was thought that the heaps in the angles of the chamber would prove to be the fragments of vases deposited entire when the funeral rites were completed. This, however, was not the case, and whence the fragments came and why here deposited must be matter of conjecture. . . . That the fragments found in the chamber were those of domestic vessels required for the funeral feast is by no means clear; for in such case, had the mass of fragments been deposited, it would have been possible to reconstruct at least some of the vessels. As it is, the variety of form and ornament, of colour and texture displayed by them is even more remarkable than their number. In hardly more than three cases were two or more fragments of the same vessel met with. In stating that there were parts of not fewer than fifty different vessels, we shall probably be very much within the truth. They have been of every size, from that of a small salt-cellar to a vase holding a couple of gallons. . . . The ware appears to have been more profusely covered with ornament, impressed or scored, than the cinerary urns in the barrows of south Britain usually are. In this respect it assimilates more to the style of the "drinking-cups" of these barrows.

It does not seem likely from the account that any drinking-cups or beakers were represented among the fragments from this barrow, but in the light of recent discoveries in Haddingtonshire and at Peterborough, Thurnam's words seem almost prophetic; and now that the beaker is shown to have been a domestic as well as a sepulchral vessel, the marked difference in thickness between the hemispherical bowl and the earliest pottery of the round barrows has to be considered. The thinner vessels were more highly ornamented than the bowls, and practically their whole surface was covered with patterns, produced with a pointed or notched stick, or a disk with notched edges that revolved over the wet clay. The zones left plain are fairly narrow, whereas the lower half of the neolithic bowls was sometimes left unornamented. The latter type generally has a herring-bone pattern consisting of repeated impressions of a twisted thong, or possibly a shell; and above the hollow moulding, which was practically inaccessible, the decoration is continued on the lip and inside the rim, the upper edge having a series of sloping transverse lines.

There are, however, fragments of neolithic ware from the Peterborough pits that deviate from what may be considered the normal pattern. The most

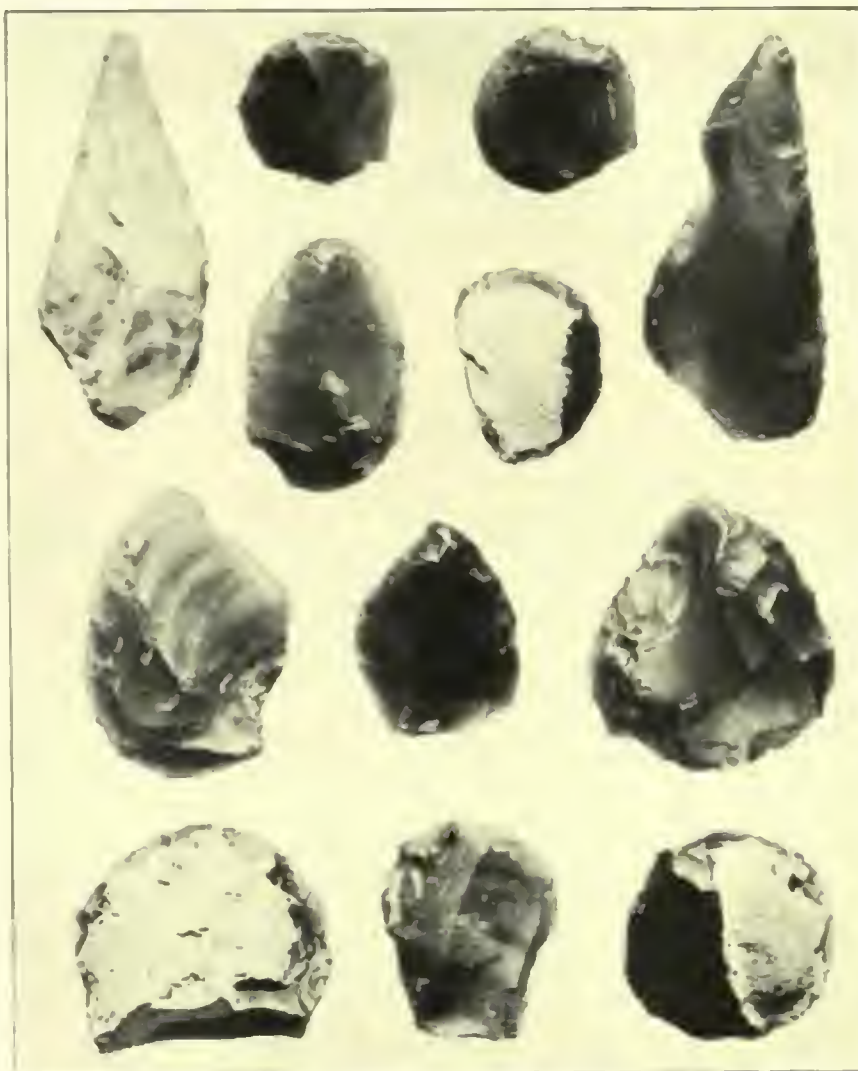


Fig. 1. Selection of Neolithic flints, Peterborough. 1



Figs. 2, 3. Neolithic bowls, from Thames at Mongewell, near Wallingford. 2

striking is a piece about 3 in. square of greyish ware (fig. 8), with enough curve to indicate a maximum outside diameter of $14\frac{1}{2}$ in. The paste is necessarily good for a vessel of that size, but comparatively thin, additional strength being derived from a thick moulding between the spaces filled with finger-nail pattern. The curve inside shows that from this point sprang the shoulder, and the vessel may have been constructed on the lines of a beaker.¹ Two other fragments of black ware with yellow faces show an in-turned rim, the exterior bearing finger-nail ornament, and the wall being set at the angle seen in the accompanying

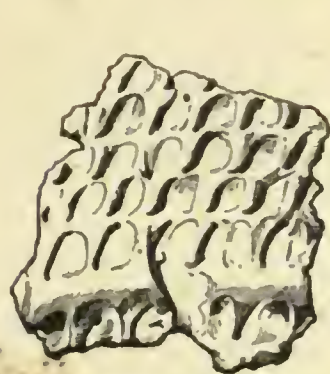


Fig. 8. Fragment of large drinking-cup (?) Peterborough. $\frac{1}{2}$.



Fig. 9. Fragments with in-turned rim, Peterborough. $\frac{1}{2}$.

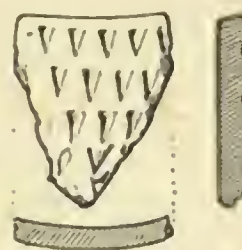


Fig. 10. Fragment with plain edge, Peterborough. $\frac{1}{2}$.



Fig. 11. Fragment with double groove, Peterborough. $\frac{1}{2}$.



Fig. 12. Pitted fragment with section and lip ornament, Peterborough. $\frac{1}{2}$.

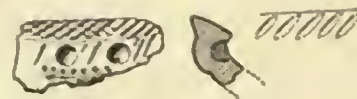


Fig. 13. Pitted fragment, with section and interior design, Peterborough. $\frac{1}{2}$.

section (fig. 9). Another (fig. 10) includes part of a plain upper edge with a similar impressed pattern in rows; and a larger fragment (fig. 11) furnishes a new variety with an outside diameter at the mouth of 10.2 in., the lip bevelled from within, and the outside ornamented with a deep impressed pattern that might be called a series of holes, with a double moulding below the lip-band. The paste is better than most and baked fairly hard, but the entire form must for the present remain uncertain. Two other fragments (figs. 12, 13) have not only

¹ Perhaps like one from Somersham, Hunts., $10\frac{1}{2}$ in. high, preserved in the Cambridge Antiquarian Museum. *Proc. Soc. Ant. Scot.*, xxxviii. 386, fig. 71.

incised ornament on the inner edge of the lip, but a row of deep circular indentations or pits outside; and the sections show peculiar varieties of lip which are no doubt contemporary, but do not correspond to the typical round-bottomed bowl.

The deep indentations below the lip of these last fragments are strongly suggestive of contemporary pottery found in Finland and certain parts of Sweden. In the former country many fragments have come to light with a herring-bone pattern in horizontal bands divided by rows of deep circular indentations, which are also common below the lip¹; while in Sweden the parallel is still more complete. A large quantity of sherds came from neolithic sites at Aloppe and Mjölkbö, Uppland, with simple impressed and incised patterns chiefly zigzag, and horizontal rows of pits: the top edges were also ornamented, and the bases uniformly rounded.² The fragments were generally small, but some evidently belonged to large vessels, and a few small cups were represented. Several vessels were contracted at the neck, with slightly spreading lip, and the decoration was almost exclusively on the upper part of the bowl, consisting of lattice design, impressed rings, and crescents. The paste had a certain proportion of quartz and felspar grit.

Neolithic pile-dwellings at Alvastra, on the eastern shore of Lake Vätter, have lately been investigated,³ and produced pottery in small fragments, with grit in the paste and much weathered. The ornamentation included rows of small or large pits, of circular or irregular shape, sometimes associated with horizontal zigzags. Two pieces illustrated have also decoration on the upper edge. They date from the period of the *gånggrifter* (chambered barrows dated by Professor Montelius 2500-2000 B.C.), and the site seems to have been a meeting-place of the South Scandinavian and East Swedish cultures. The pitted pottery is said to be characteristic of the latter area, which was inhabited by hunters and fishers, while in southern Scandinavia agriculture and domestic animals betokened a higher civilization.

The characteristic decoration of the drinking-cup or beaker is well known, and full justice has been done to the Peterborough series by our Fellow Mr. Praetorius, whose skilful reproduction of the patterns gives additional meaning and value to the series of fragments, and renders a detailed description unnecessary. The beaker has also been handsomely treated by Hon. John Abercromby, who has already published two fully illustrated papers⁴ on the type, and is about to

¹ Brügger, *Den arktiske Stenalder i Norge*, 136, 137, etc.

² *Fornvännen*, 1906, 101, figs. 8-26; cf. p. 257.

³ *Ibid.* 1910, 58, figs. 53, 73, 78-80.

⁴ *Journ. Anthropol. Inst.*, xxxii. (new ser. v), 373; *Proc. Soc. Ant. Scot.*, xxxviii. 323, with 172 figs. and map of distribution.

issue a new volume on the subject which will bring the British series into relation with the neolithic Schnurbecher and Zonenbecher of the Continent.

Apart from the beakers, some of which are of exceptional size but otherwise quite normal, the present discovery affords an opportunity of following the history of the round-bottomed neolithic bowl; and the accompanying illustrations (pl. XXXIX) will convey a better impression than any verbal description of what I take to be its development into the "food-vessel" of the barrows. It is true that beakers have been found in long barrows,¹ but the association of the bowls with that type of barrow is now established, and it will be admitted that the beaker is normally found in round barrows, and with unburnt bodies, occasionally with bronze objects. Much the same may be said of "food-vessels", though this type is often found with cremated remains, and seems to have passed through a time of transition in respect to burial rites. Beakers are occasionally found with food-vessels in the same grave (though not with the same body),² but they are quite distinct in form, material, and decoration. Certain food-vessels might almost be taken for neolithic bowls if they had a rounded base, and there appear to be intermediate links connecting these two forms. One more instance must be given in detail, as the discovery was evidently rather a puzzle to the excavators, and none of the usual names of sepulchral pottery seemed applicable. The vase (fig. 14) has been restored not altogether satisfactorily, and was presented to the British Museum by Dr. Greenwell. It is 4 in. high, the ware pinkish brown, fairly thin and hard, with a fair proportion of grit; and the ornamentation consists of curving but irregular groups of lines made with a toothed stick. This vase, which is also ornamented on the top edge, was found just above a stone chamber in a long barrow at Upper Swell, Glos.,³ but was considered by the excavators to have had no connexion with it and to be of considerably later date. Though the ware is comparatively thin and the bottom flat, the profile recalls that of the neolithic bowls, and is distinct from any recognized Bronze Age type.

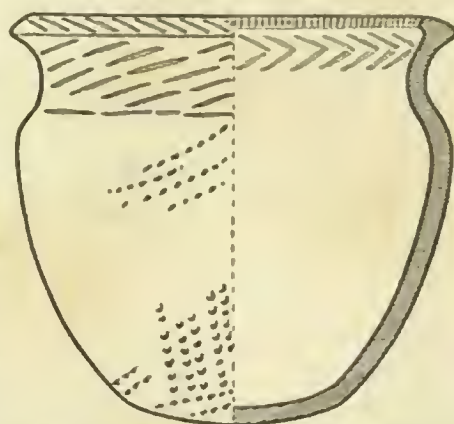


Fig. 14. Vase with section, Upper Swell long barrow, Glos. $\frac{1}{2}$.

¹ Examples in British Museum from Thurnam collection, found at Wilsford Down (*Archaeologia*, xliii. pl. xxxi. fig. 1), and Figheledean, Wilts.

² This appears to be the case from Dr. Greenwell's tables in *British Barrows*, p. 458. and his additions in *Archaeologia*, lii. 1. Mr. J. R. Mortimer knows of no instance of the two types being found with the same body; when found in the same grave the drinking-cup is on a lower level (*Forty Years' Researches*, 223).

³ Greenwell, *British Barrows*, 523; *Journ. Anthropol. Inst.*, v. (1876), pl. v. fig. 3 (view of stone chamber above which it was found).

Irish "food-vessels" are often shallow in proportion to their diameter, and many have no well-defined foot, the lower portion being practically in one curve. One vessel (pl. XXXIX, fig. 1) found in a stone cairn in Ireland is cylindrical above and rounded at the base, and the same variation of the typical neolithic bowl has been found in chambered cairns in Bute and Argyleshire.¹ That this form passed almost insensibly into the "food-vessel" of the round barrows is suggested by the accompanying illustrations of specimens from Ireland in the British Museum, the exact sites being unfortunately not recorded. Certain finds in Scotland² suggest that a similar evolution went on in the south-west, but the series is at present not so complete as in Ireland.

The connexion between figs. 2-4 on the plate will hardly be questioned, the rounded base being flattened just enough to allow the latter to stand alone. In fig. 3 the mouldings are not so pronounced and are placed closer together, while the fourth specimen of the series has the mouldings somewhat bolder than before and reaches the true food-vessel type of the Bronze Age, tapering to a comparatively small base. The similarity of the ornament on all four vessels proclaims community of origin and no great difference of date; and it is significant that food-vessels are plentiful in Ireland, the ornamentation of the upper edge being retained throughout, and the profile gradually changing during the early days of bronze.

At present there seem to be no remains of typical "food-vessels" from domestic sites, though in view of recent discoveries it would be unwise to regard that type as exclusively or essentially sepulchral. That the "drinking-cup", a vessel as highly decorated, much thinner, and better made, was a household necessity as well as a desirable piece of grave furniture is now clearly demonstrated.³ The discovery of two neolithic bowls and two drinking-cups on the same spot in the bed of the Thames at Mortlake is curious, but not so convincing as two recent finds in Scotland, which I proceed to summarize.

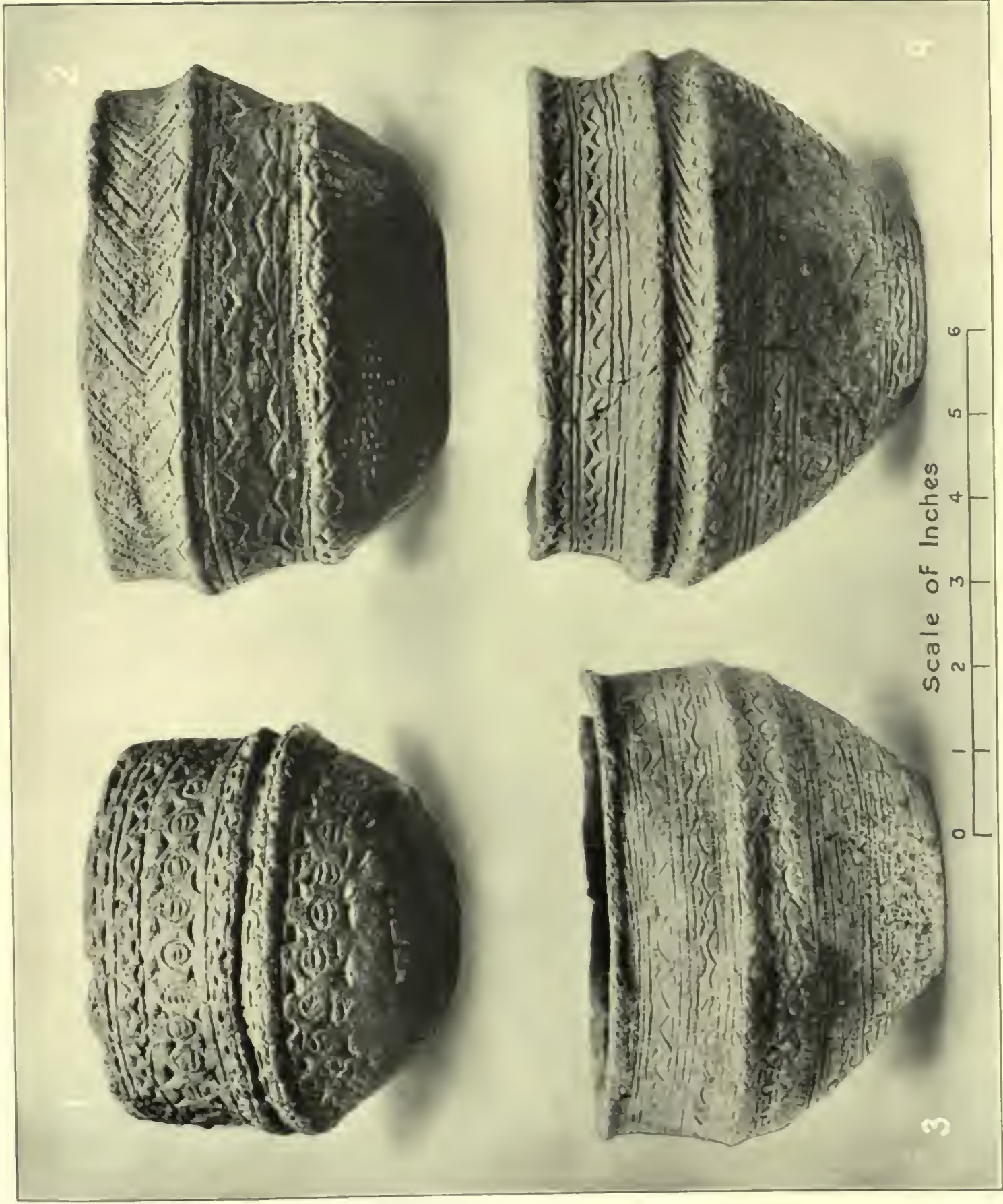
In November 1907 some kitchen-middens on the links fringing the shore on the east side of Gullane Bay, Haddingtonshire, were examined by Mr. Alexander Curle with interesting results.⁴ The middens were marked by accumulations of shells in the blown sand, and at three spots a quantity of pottery was

¹ See note *ante*.

² A somewhat globular example from Oban (Anderson, *Scotland in Pagan Times: Bronze and Stone Ages*, 85, fig. 106) has rings enclosing parallel lines like the round-bottomed bowl on pl. XXXIX; and the later form, with double moulding and indented chevrons, has been found at Kinneff, Kincardineshire, and Tormore, Arran (*ibid.* figs. 66 and 117).

³ It may be added that drinking-cups of type β were found in pits at Hitcham, Bucks., and are now in the British Museum. A brief account is given in *Maidenhead and Taplow Field Club Report*, 1890 1, 46.

⁴ *Proc. Soc. Ant. Scot.*, xlii. 308.



EVOLUTION OF FOOD-VESSELS IN IRELAND

Fig. 1. Neolithic bowl. Figs. 2, 3, 4. Bronze Age food-vessels

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found that could be readily grouped into two main classes, (1) thick coarse vessels of large diameter and (2) vessels of finer texture and smaller diameter, with decoration in repeating zones. Of the first class, fragments were collected representing five vessels of thick and heavy ware, three at least of which were cylindrical with raised mouldings either on the inside or outside of the lip (see figs. 4, 5 of original account). The diameters of this type were calculated to be roughly $9\frac{1}{2}$, $7\frac{3}{4}$, and 10 in.

The second class is represented by remains of no less than twenty-seven vessels, two of which could be sufficiently restored to show the original shape of at least their upper portions; and their identity with the so-called "drinking-cups" of Bronze Age burials is unmistakable (see figs. 6-9 of Mr. Curle's paper). There was the same decoration in repeating zones, the same combination of chevrons, diapers, and straight lines made with a pointed tool or a comb, or by impressing a twisted thong. The texture and thickness of the fragments also corresponded to the "barrow" type and the dimensions were analogous, though the measurements are not recorded. All those with corded pattern only and some of the other specimens had the lip bevelled, the slope being on the inside; while the remainder had a blunt lip of the same thickness as the body. None of this second ("drinking-cup") class showed the sooty incrustation or discoloration of the first class, characterized by its weight and thickness; nor were the two kinds found intermingled in all the middens. At the first spot examined no fine decorated ware except that with the corded pattern was found, whereas in the second midden, almost contiguous, there were no traces of the heavy ware. The third midden contained fragments of thin red ware decorated with the impressed thong or cord, three ornamented in the "drinking-cup" style, and one of the thick coarse ware of the first midden. The associated finds were few and unimportant, throwing very little light on the date of these rubbish-heaps except in a negative way, as no ancient metal was recovered; and it might therefore be argued that all these sherds belonged to the neolithic period, though the ornamented ware is certainly found elsewhere occasionally with bronze.

In the spring of 1907 a mediaeval paved floor was found at a depth varying from 14 in. to 4 ft. by Mr. James Cree, in his vegetable garden at Tusculum, North Berwick, Haddingtonshire; and further excavation resulted in the discovery beneath it of a prehistoric kitchen-midden consisting of a stratum about 1 ft. thick and about 8 ft. from the surface, extending over an area about 50 yd. by 12 or 15 yd. The site is about 250 yd. from the sea, and the abundance of whelk-shells indicates the principal food of the prehistoric inhabitants, though there were also large numbers of limpet and land-snail shells. A few bone tools, stone-pounders, and part of a hammer-head with the perforation begun on both faces, also some flint flakes and one good flint knife, throw further light on the

stage of civilization then reached in these parts, but the most important finds were fragments of pottery that can be approximately dated, and are quite in accord with the negative evidence afforded by the stone relics. Fragments of a bell- or tulip-shaped beaker ($6\frac{1}{2}$ in. outside diameter of lip) when pieced together showed the section except near the base, and the outside bore the usual ornamentation of horizontal lines practically covering the body. Other fragments, admirably illustrated in the original account,¹ belonged to straight-sided or at least to straight-lipped vessels, either of thin ware like the ordinary drinking-cup or beaker with horizontal lines, or of thick coarse ware with horizontal, crossed, diagonal, or vertical lines, and sometimes bevelled inside the lip. Altogether from this stratum no less than 734 fragments of pottery were recovered, none of large dimensions, but all referable to very distinct types. At a distance of 30 yards another midden was found, and proved over an area 64 ft. by 25 ft. It averaged 1 ft. in thickness and was 5 ft. from the surface. The finds were practically identical with those already described, but a few had a moulding or ledge a little below the rim, one at least had an incurved lip, and there were a few specimens of plain ware, fairly thick, with everted lips. Mr. Cree summarizes the pottery finds as follows:

All the potsherds from midden no. 1 were of fine texture, and none of great thickness. This can also be said of a considerable portion of the sherds found in midden no. 2. Generally speaking, only a few of the rims found in both middens were plain, the large majority being decorated. No fewer than 454 potsherds of various sizes and thicknesses were found in the excavation of midden no. 2. A number of these were of the impressed cord pattern, and were of similar thickness to those in midden no. 1. Numerous fragments however were of much coarser texture, some plain, others decorated, and it would thus seem that the two middens may not have been contemporaneous.

In the illustrations, however, there is little to confirm the author's suspicions that some of the fragments belonged to cinerary urns, as there were no signs of burials of any sort on the site, or of the overhanging lip that is so characteristic of Bronze Age cinerary urns. The many coincidences noticed in the paper are all in favour of the view that the two middens are contemporary or only separated by a brief interval of time. The uniformity of the majority is certainly striking, and the traces of soot on several specimens is proof enough that the so-called drinking-cup or beaker was used both for domestic and sepulchral purposes. The complete absence of metal in these layers was particularly noted; and this, combined with the rarity of bronze in connexion with beakers buried with the dead, suggests most strongly a very early date in the Bronze Age, or their attribution in Britain (as on the Continent) to the neolithic period.

¹ *Proc. Soc. Ant. Scot.*, xlii. (1907-8), 253.

We now seem to have something more than negative evidence with regard to the date of beakers in Britain, and the association with neolithic ware is all in favour of the introduction of the beaker into this country before bronze was in use on this side of the North Sea, though metal had become fairly common before the beaker passed out of fashion. It is tempting to suppose that the thin tall cups were introduced by strangers who first settled along our eastern coasts; but that in time the native tradition reasserted itself and a modification of the neolithic bowl took the beaker's place in the grave.

The map prepared by Hon. John Abercromby to show the distribution of the "drinking-cup" or beaker is justly considered by him to indicate its introduction across the North Sea, and its home may some day be determined with precision. The domestic finds in Haddingtonshire are actually on the sea-shore, and Peterborough was much nearer the sea 4,000 years ago than it is to-day. The number of sites diminishes towards the west; and, according to Mr. Coffey¹ who has specially examined the evidence, there is only one find of drinking-cups in Ireland, fragments of three or more having been found together at Moytirra, co. Sligo. On the other hand, "food-vessels" of a peculiar form, shallow, rounded, and highly ornamented, are common in South Scotland and Ireland, and do not occur elsewhere, though taller specimens, of conical form, are frequent in certain parts of England, as well as in Scotland and Ireland. An attempt has been made above to show that the intermediate links between the neolithic bowl and the Bronze Age "food-vessel" are represented by Irish examples; and the corollary seems to be that the indigenous neolithic population was driven westward by invaders from beyond the North Sea, and taking refuge in South Scotland, and Ireland developed, especially in the latter country, their traditional pottery type and in time reached the form that reappears on the east coast of Britain as the "food-vessel". The explanation of this revival may be that the invaders were by degrees absorbed or overwhelmed by the neolithic stock, and the imported type of pottery gave way to the native ware which had developed elsewhere in the meanwhile. Two thousand years later practically the same thing happened again: Celtic artists took refuge from the Roman advance and further developed in Ireland, during the first four centuries of our era, the art that British genius had evolved from the Early Iron Age of the Continent. Its renaissance in England followed in the late Anglo-Saxon period.

The "food-vessel" does not correspond to any known continental form, and

¹ *Journ. Anthropol. Inst.*, new ser. v. 397; Wood Martin, *Rude Stone Monuments of Ireland*, figs. 146-8. It should be noted that the only type found in Ireland is Mr. Abercromby's β type, corresponding to the Zonenbecher, tulip or bell-form beaker of the Continent, another indication that the beaker folk of our east coast never crossed St. George's Channel.

² The round-bottomed bowl, drinking-cup, and food-vessel were all found in cairns near Crinan, Argyleshire, by Dr. Greenwell (*Proc. Soc. Ant. Scot.*, vi. 341, pl. xx. figs. 1-3).

can now be regarded with some security as a native invention or development. Continental analogies may help us to determine the racial affinities of the "drinking-cup" folk who also belonged in part to the neolithic period, but there is a further problem, to determine the ethnological character of the aboriginal neolithic inhabitants of this country in the light of their pottery, their funeral rites, and skeletal peculiarities. To connect them with the earliest known inhabitants of what is now Finland, on the strength of some resemblance in the pottery of these two regions, would be premature and unwise; in fact, the Finnish theory has long ago been brought forward and dismissed. But pending further developments, there can be no harm in supposing that the neolithic population of our islands belonged to a stock that occupied the extreme north of Europe, possibly extending into Asia, and was distinct from the races of Central Europe. To inquire whether the former were the direct descendants of the palaeolithic hunters who followed the reindeer northwards is beyond the scope of this paper.

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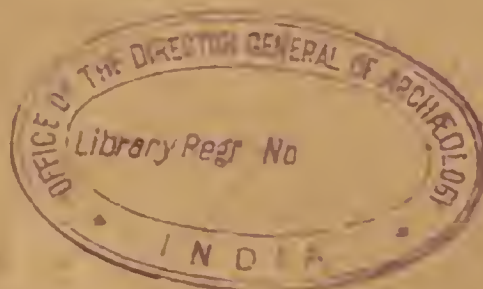
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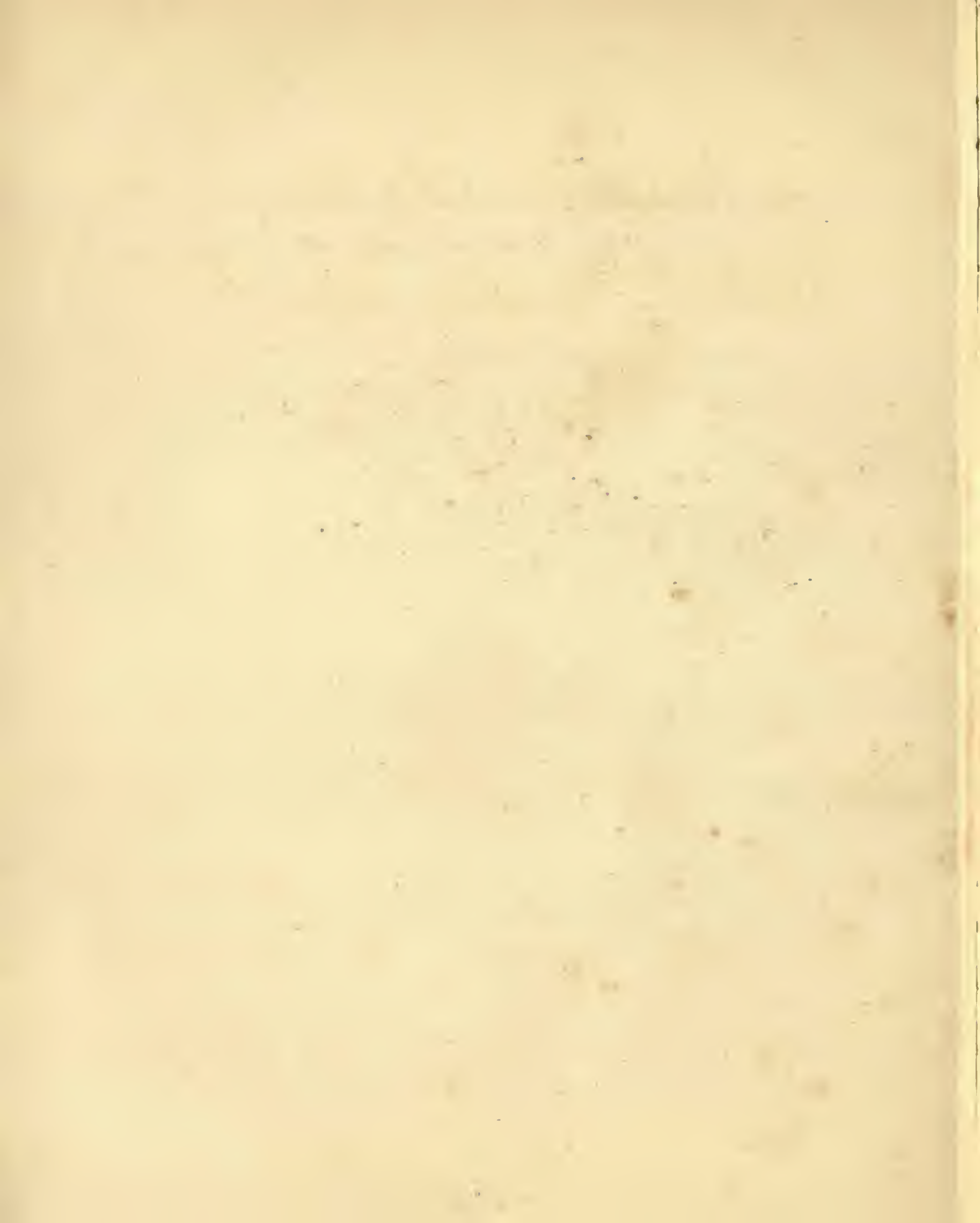
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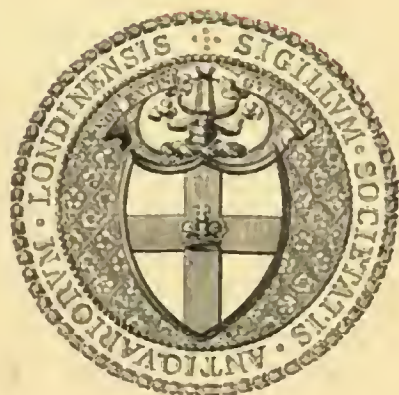
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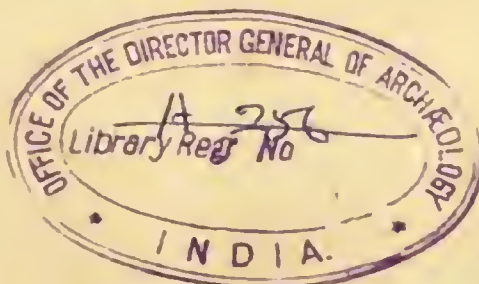
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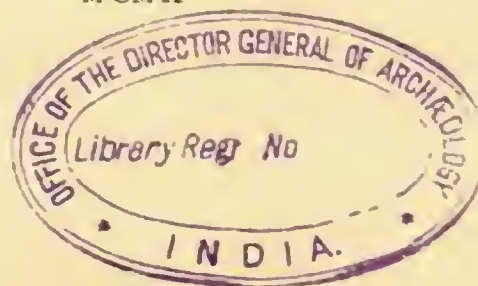
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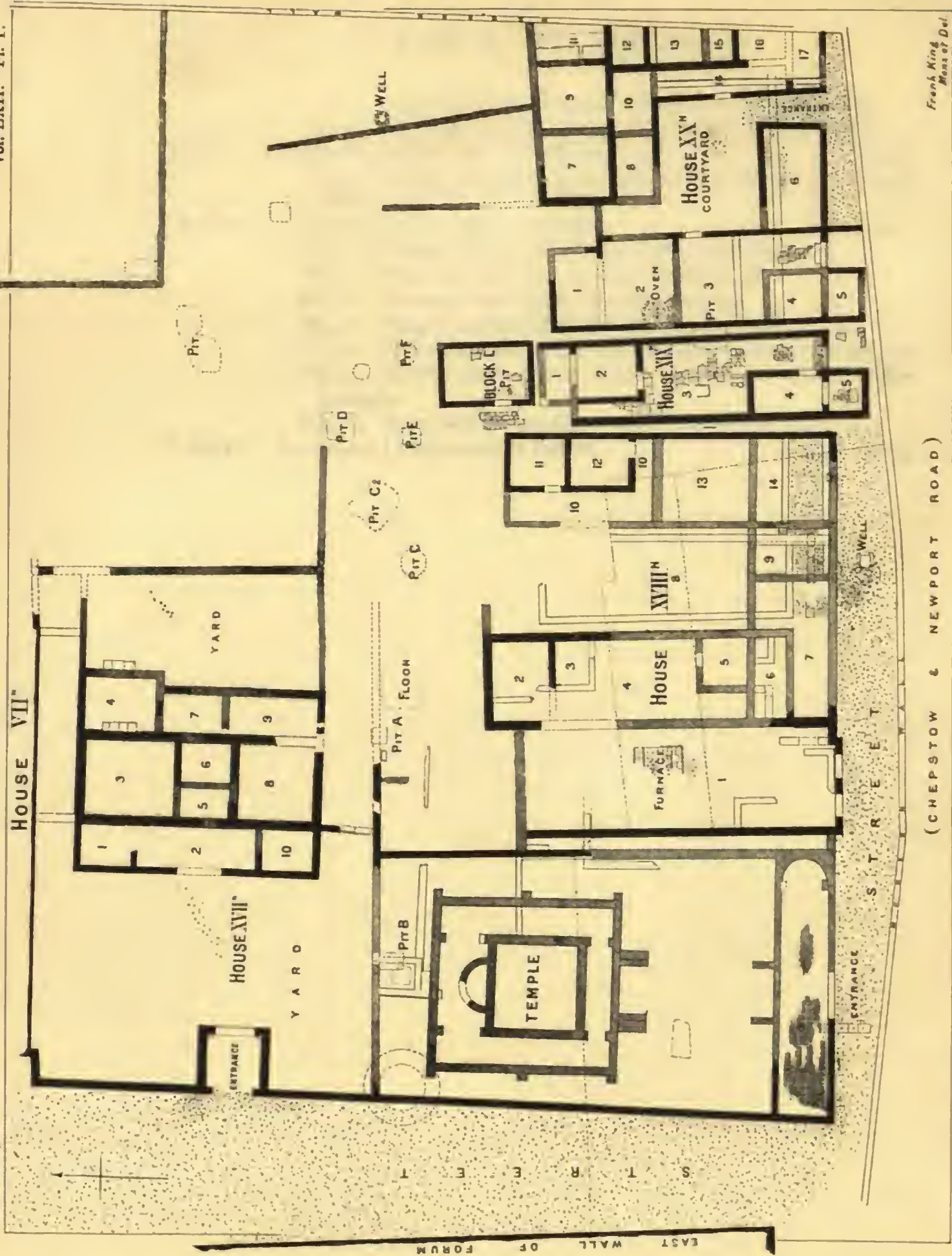
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(CHEPSTOW & NEWPORT ROAD)

Frank King
Meas & Del

C. J. PELL & SON PHOTO-LITHO WESTMINSTER

CAERWENT. PLAN OF TEMPLE AND HOUSES XVII, XVIII, XIX AND XX.

Published by the Society of Antiquaries of London 1870.

ARCHAEOLOGIA

OR

MISCELLANEOUS TRACTS

ETC.

I.—*Excavations at Caerwent, Monmouthshire, on the Site of the Romano-British City of Venta Silurum, in the year 1908.* By THOMAS ASHBY, Esq., D.Litt., F.S.A., ALFRED E. HUDD, Esq., F.S.A., and FRANK KING, Esq.

Read 14th January, 1909.

THE excavations of 1908 began on 15th June, and were continued until 6th November, under the direction of Messrs. Ashby, Hudd, and Jones, assisted by Mr. F. King as architect.

They were entirely carried out in the orchard and gardens which now occupy the *insula* to the east of the forum, immediately to the north of the high road. House no. VII x, which was excavated in 1906,¹ occupies the northern portion of this *insula*.

The site was very largely made ground, and had been previously occupied by a number of pits.

HOUSE no. XVII x.

To the south of House no. VII x lies a small house, which we have called House no. XVII x. Its plan (plate I) closely resembles that of House no. III x,² consisting like it of a range of rooms running north and south, with a narrower range on each side of them; Room 4, at the north end of the east range, being somewhat wider than the rest.

The house had been a good deal destroyed both in ancient and modern times, some of the walls having been dug out for building material. On the west side of Room 3 were strong traces of burning. Here, on a mass of *débris* and blackened earth, lay fragments of two sandstone slabs, 1 $\frac{1}{8}$ inch thick, and measuring altogether about 2 feet 6 inches by 1 foot 10 inches. In Room 4 lay a similar fragment, also

¹ See *Archæologia*, lx. 451.

² *Archæologia*, lix. pl. xi.

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on *débris*, and of about the same size as the other two together. The floors have in some places disappeared.

Room 3 has its walls preserved on all four sides above the level of the concrete floor, and of the slabs in Room 4 and to the east of it. It is not certain where the entrance was, whether it was by steps, or in the south-west corner of the room, from Room 5.

In the south-west angle of Room 2 a small portion of white plaster was still *in situ* on the wall, and in working along the wall between Rooms 1 and 3 a considerable amount of ordinary black pottery was found. Along the wall between Rooms 3 and 4 a weaver's bone comb was discovered, and adjoining the west wall of Room 4 were fixed four sandstone slabs each about 7 inches thick and 2 feet 1 inch square. A similar line of slabs was found outside the east wall of this room (see plan, plate I). In both cases, no doubt, the slabs were used as steps forming the entrance to Room 4 from the east and from Room 4 into Room 3: only in the latter case there must have been another step up, as the west wall of Room 4 was preserved to a height of 1 foot above the slabs.

Near the east wall of Room 4 a piece of the bottom of a Samian bowl with a circular floral stamp was found, and with it coins of Constantine I and Valens. This only goes to show, what has already been noticed at Caerwent, that owing to the site having been continually inhabited, and ransacked for building material, the chronological order of the strata has been much disturbed, and that the chronology is only certain where pottery is found under floors. This was also the case in Room 8, where 2 feet down a coin of Claudius Gothicus was found, with a piece of second-century Samian. Coins are apt to work their way downwards, worms assisting their progress. At 2 feet 6 inches below grass level on the north side of Room 8, and 3 feet below on the south side, was a concrete floor with fragments of plaster in it, and a burnt layer on top. Below this floor, and 4 feet below grass level, a piece of second-century Samian was found.

The small rooms 5 and 6 occupy the middle of the house.

On the west side of Room 5 there was plain white plaster *in situ* to a height of 2 feet above the floor level. The plaster was $1\frac{1}{2}$ inch thick, and finished with a quarter-round moulding as skirting on the floor. The floor was of concrete, rather perished, and some 4 to 6 inches below the threshold stone of the room. A small brass of Trebonianus Gallus (A.D. 251-254) was found on this floor. Between Rooms 5 and 6 the wall is broken away for about 3 feet, and there may have been a doorway here. These two rooms were accessible from one another, and Room 5 could be entered from Room 3, but neither had any well-defined entrance southward into Room 8. There was no access westward into Room 2; indeed, the western range of rooms, nos. 1, 2, and 10, seems to have been shut off from the rest of the house.

Room 2 was entered directly from the yard, and Rooms 1 and 10 from Room 2. Room 7 was probably entered from Room 4, and Room 9 from Room 7. Whether Rooms 7 and 9 had any entrance from the east, and whether Room 9 led into Room 8, must be treated as doubtful.

In Room 9 a fragment of a Kimmeridge shale disk and some brightly coloured (pink, green, and yellow) plaster were found.

To the east of the house is a yard with rough pitching about 1 foot 6 inches below grass level. The yard is surrounded by walls on all sides, and was probably entered from the east. Its north wall has two cross walls connecting it with House no. VII x. The foundation of another wall was found running north from the north-west angle of Room 3. There is also a yard on the west of the house, roughly pitched, and bounded on the west by the wall which follows the eastern edge of the street.

The northern portion of the wall is shown in the plan of House no. VII x, already published in *Archæologia*,¹ and there wrongly attributed to the latest period of the house. As a matter of fact it has been since ascertained that the portion running eastward (and therefore the whole wall) is earlier, and not later, than the south wall of Room 20 of House no. VII x. This portion of the wall originally ran right up to the south-west angle of the earliest building of House no. VII x and was broken away when it was extended westwards. This explains the facts (1) that it forms a right angle with the west wall of the first date of this house, and (2) that instead of joining House no. VII x at the south-west angle of the building of the third date it runs on a little further east and is then broken away.

The yard west of House no. XVII x is entered from the street by a gateway 9 feet 3 inches wide; this leads into a space 12 feet 6 inches square with another gateway on the east. The socket hole for one of the gates is still preserved in the stone on the north side of the east gateway.

No doubt here, as probably at the entrance to the forum, there was a porch. Red and yellow plaster fragments were found here.

On the south the yard is closed by the boundary wall of the temple (see below), and on the east by House no. XVII x itself. The space between House no. XVII x and the temple boundary wall prolonged eastward is closed, opposite the south-west angle of Room 8, by a short piece of wall and a doorway. The threshold stones of the door are still preserved *in situ*. It is, however, doubtful if one of these blocks originally served as a threshold stone; the groove in it may have supported another block placed endwise.

¹ Vol. lx. plate xlii.

THE TEMPLE

The building to the south of House no. XVII N, occupying the ground between the latter and the high road, was next excavated, and proved to be one of the most important and interesting structures yet found at Caerwent. There can be no doubt that it is the remains of a Roman temple, and although the building has been destroyed nearly throughout to below floor level, and has been used as a stone quarry by the builders of the houses and garden walls in the neighbourhood, enough remains to enable the ground-plan to be restored fairly completely.



Fig. 1. The Temple, from the south-east.

It greatly resembles the temple found in the beginning of the last century by the Hon. and Rev. W. H. Bathurst, and all too briefly described by him in his *Roman Antiquities of Lydney Park, Gloucestershire*.¹ The ground-plan of this Lydney temple, as given by Mr. Bathurst (plate iv c), is very like ours at Caerwent, but the latter is much smaller. The Lydney building measured about 93 feet by 73 feet, and the *cella* about 60 feet by 30 feet.

The Caerwent temple consists of a rectangular *cella*, 20 feet by 19 feet 6 inches, with an apse in the middle of the north side (fig. 1). There are pilasters at the north and south ends of the east and west walls, which balance the pilasters

¹ London, 1879.

in the surrounding wall of the *podium*. This wall has buttresses at the ends of the north and south sides and in the middle of the east and west sides, and is sufficiently far away from the walls of the *cella* to leave plenty of space for an ambulatory completely round it (see plan, plate I). Running south from the south side of the *podium* are two short walls symmetrically placed, and forming the sides of the entrance to the temple across an open space¹ from a room with a tessellated floor which occupies the whole of the south front of the temple area.

This is bounded on the south by the high road; on the west by the road running north and south to the east of the forum; on the north by the yard of House no. XVII N, and on the east by the building we have called House no. XVIII N. The enclosed temple area measures 110 feet from north to south, and 63 feet from east to west.

All the walls of the temple are massive and well built.

The *cella* and its *podium* occupy the northern portion of the temple area, but are not placed quite symmetrically in it, the outside boundary walls not running parallel with the walls of the *podium* (see plan). This is probably due to the fact that the former in part belong to an earlier period (see below).

Careful examination of the interiors of the *cella* and the *podium* has not yielded much except miscellaneous *débris*, as though they had been purposely filled up to form a floor level which has almost entirely disappeared, except on the south side of the *podium*. The natural bottom was reached 5 feet below the grass level, and the walls ran down to this depth to ensure proper stability. A few



Fig. 2. Bronze serpent-head ornament found in the Temple. †.

old red sandstone *tesserae* were found in the *cella* and its apse, close to the surface of the ground, and lower down in the apse a few pieces of window glass and of coloured plaster, red, white, and yellow. At 5 feet down a coin of Victorinus and one of Gallienus were found; also a silver one of Alexander Severus.

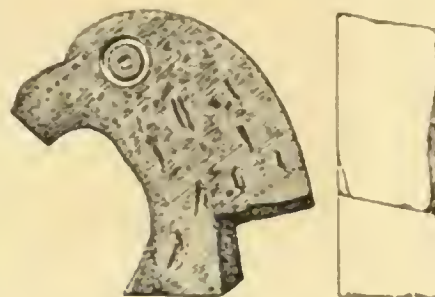


Fig. 3. Bird's head of carved bone found in the Temple. †.

To the east of the *cella* a small bronze serpent-head ornament, about 2½ inches long (fig. 2), was found 3 feet below grass level; also buried in front of the apse a dog's skull, and a bird's head in carved and polished bone (fig. 3).²

¹ A later pit, roughly rectangular, and 6 feet in depth, has been formed in mediæval or modern times on the west side of this space.

² These relics are not conclusive, but like the Lydney temple this one may have been dedicated

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In the space between the south wall of the *cella* and the south wall of the *podium*, and in a line with the entrance, a cement flooring resting on a concrete foundation was found on a level with the tessellated floor of the entrance hall (see below). This is the only part of the pavement of the *podium* which is preserved.

The long room which occupies the south front of the temple area has an apse at its east end, and is paved with old red sandstone *tesserae*, roughly laid. Only one side of the entrance from the street to this room was preserved, and three large blocks of sandstone were still *in situ* outside at the road level, and one inside on a level with the floor. These no doubt formed part of an architectural feature at the doorway of this important building.

There are a few traces of earlier walls within the area of the temple, which are perhaps contemporary with the external boundary walls of the temple area on the north and west. These walls are very low down, only one or two courses being preserved, and surrounded a pit which we have called Pit B.

Over the east wall and partly over the pit there was found a hearth made of sandstone blocks. Below this hearth, 4 feet down, was found some Samian pottery, one a straight-sided bowl (Dragendorff 30),¹ and pottery was found almost all the way down. The bottom of the pit was reached 13 feet below grass level, and 9 feet 6 inches from the top of the walls surrounding the pit. To the west of the pit was pitching at a very low level round the foundations, and between the wall bounding the pit on the south and the north wall of the *podium* was a mass of masonry, filling up the space between the walls. Both these features are probably to be attributed to the instability of the ground, and may be considered as precautionary measures.

Running east from near the middle of the east wall of the *cella* is another early foundation which runs under the east wall of the *podium* and the east boundary wall into the line of the north wall of Room 1 of House no. XVIII N. It looks as if the east boundary wall for some distance southwards from this point is built on a wider and earlier foundation. It also appears that the whole of the temple, as it at present stands, is of a later date than these early walls running east under

to a health deity, possibly Aesculapius, or Hygeia. The serpent's head is too heavy to have formed part of a bracelet or brooch, and it has been suggested that it may have been part of a statuette of Hygeia, who was sometimes represented with a serpent twined around her body. A stone effigy of the Romano British period, with remains of a serpent coiled round the bust, was found some years ago a few miles east of Caerwent, but has not yet been described or illustrated. The Caerwent serpent differs from any other known to me from Roman times in having a distinct triangular crest on the top of its head. [A. E. H.]

¹ The elements of decoration are as follows: In the first vertical division Déchelette 34 (seahorse to right), under it a garland; under this D. 969 (quadruped, hare?, to left). In the second vertical division a medallion with a scene; under it D. 1035, 1009 (bird to left and bird to right). The pattern is then repeated: the seahorse apparently recurs (to left) and under it is D. 927 (dog to right).

its eastern boundary wall. The fragments of walls between the temple and House no. XVIII π may belong to this early building, or to another house of the same date.

There were remains of some later constructions belonging to post-Roman times at the north-west angle of the temple area. Here over the north-west corner and partly over the Roman street was found a circular building 11 feet in diameter, with walls 3 feet 6 inches thick. A portion of the slab floor was still *in situ*, well above the level of the Roman street. On pulling down the portion of the circular wall over the north-west angle of the *podium* the buttress was discovered, and several of the sandstone blocks which had formed part of the buttress had been used to build the wall of the circular building. On clearing out the chamber a few bones of pig, fish, and chicken were found. The structure is no doubt post-Roman, and may have been the foundation for a circular stone culverhouse similar to several of mediaeval date which still remain in the West of England and South Wales; or it may have been a pigeon-house belonging to Caerwent House, which was, a century since, the Caerwent Inn, a posting-house on the London road where several coaches stopped each day on their way through.

Just south of this round building a considerable quantity of dark red quarter-round skirting and other coloured plaster was found, 3 feet below grass level. It is uncertain to which of the walls this plaster belonged. Just here the west wall of the *podium* has been reconstructed in quite modern times, and the apse had been partly destroyed by the insertion of a modern saw-pit. We have removed the pit and roughly repaired the apse, it having been decided by Viscount Tredegar to leave the whole of this interesting building permanently open.

The street west of House no. XVII π and the temple area increases considerably in width as it goes northward; it is 24 feet 6 inches in width where it joins the main east and west road, and 36 feet 2 inches wide opposite the entrance into House no. XVII π .

HOUSE no. XVIII π

House no. XVIII π occupies the site just east of the temple area. Originally it seems to have consisted of three distinct buildings, probably shops, having a frontage line on the street, as shown by the early walls running through Rooms 7, 9, and 14 on the plan, and contemporary with the line of large flat kerbstones and street layer found in those rooms.

Whether at this stage any building adjoined the temple area it is difficult to say, but there are traces of an ancient building as shown by the early walls just inside the entrance from the street, and also by the foundations of walls passing under the east wall of the temple area. The second stage of the buildings on this site seems to have been where the middle and eastern blocks were extended

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over the footpath and street. This extension is shown by the early walls under the later front wall and over the slab kerbing and bases, which will be described later. The last stage was when the several buildings were combined into one large house, and the long wall bordering the street with another to the north, which formed the north side of Rooms 6, 9, and 14, were built.

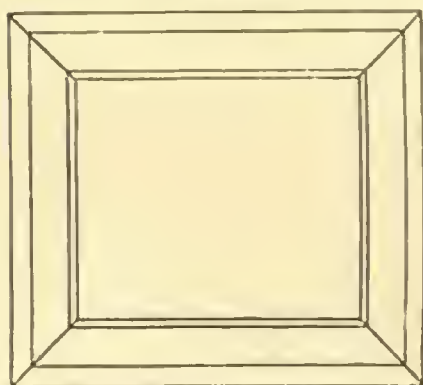


Fig. 4. Plan (1) and section (2) of one of three bases from the first stage of the eastern portion of House no. XVIII s.

We will begin with the first stage, of which not much remains. The flat kerbstones in Rooms 7 and 9 are very similar to those found on the village green in 1903.¹ The drain running north at the east end of these slabs is curious. Originally it must have served the purpose of draining the narrow space between Rooms 8 and 13, *i.e.* the space between the two buildings which would have had a considerable amount of rain water falling into it.

The early wall through Room 14, forming the south-eastern angle of the block, has a curious rebate at its western end, as if it had been intended to receive the wooden frame for a shop front.

Under the south-eastern and south-western angles of this room, and in the middle of the south wall, were found three large sandstone bases 1 foot 6 inches high and 1 foot 3 inches by 1 foot 6 inches on the top (Fig. 4); the eastern one is under the south-east corner of Room 14 and cannot be shown. These bases stood on other rough sandstone blocks, which in turn were on a rough stone foundation.

The middle base was best preserved and has been removed to the Museum, but it was found impossible to get out the lower blocks owing to their being so soft from damp and age. These bases can only have carried a porch or awning in front of the shop; there was plenty of room for foot passengers to pass between them and the shop front.²

The remains of the second stage of House no. XVIII s are more scanty than those of the first stage.

All that we can identify with certainty are the walls in outline under the front wall and the wide wall running north and south in Room 9.

¹ *Archæologia*, lix. 117 and pl. xi.

² On the wall south of the eastern courtyard of the house was found a gold coin of Elagabalus Cohen, 2nd Ed. no. 194) in good condition. This is the first gold coin we have found at Caerwent.

The whole of this building had been much destroyed owing to the erection of a malt-house on the site, all the stone required to build the malt-house being taken from the Roman walls underneath. The northern portion of the building suffered most in this respect.

The space numbered 1 simply consists of the entrance, which had a double doorway projecting 1 foot 6 inches in front of the general line of frontage to the street, the doors being 5 feet 6 inches wide. Just inside these doors was found a layer of rough stones very firmly packed and supporting a concrete floor on a level with the street surface. On the east side, 3 feet down, was found a fragment of figured Samian pottery (Dragendorff 37) with reversed stamp *MANNIO (Cinnami)*.

In the middle of this large space and inside the malt-house were two curiously shaped furnaces, consisting of two parallel rows of sandstone slabs, placed on end and paved with similar slabs, the whole showing considerable traces of burning.

To the south-west of these furnaces was a hard-rammed gravel floor. In the north-west angle of this area (Room 1) was a pit or rubbish-hole, 7 feet deep, containing only broken pottery.

Further to the south the west face of the west wall of this room was composed of long ashlar blocks in the lower part and of smaller stones in the upper part, and between the two was a continuous groove 6 inches high and 3 inches deep, the purpose of which is uncertain. On the east side there was no such difference in the face, which was uniform throughout.

Room 2 had a concrete floor about 6 inches thick and 1 foot 6 inches below the grass level, upon which was a coin of Antoninus Pius. About 8 inches below the floor is a layer of rough stones and a bedding of mortar. Below this concrete floor two earlier walls of different periods were found, running north and south in the western portion of the room. There do not seem to be any traces of a floor in connexion with either of them, and they may have been simply boundary walls to a pit to the east.

Under the concrete floor to the west of the uppermost, *i.e.* the westernmost, of these cross walls was found the blade of an iron billhook with traces of the wooden shaft in the socket; also on both sides of the cross wall some pieces of Samian (Dragendorff 37) and a piece of a bowl like Dragendorff 32, but with the lip less pronounced (a common type here). Fragments from one side of this earlier wall fitted one from the other side. Further to the east the floor had given considerably, the room having apparently been built over the site of a pit. A large quantity of pottery, including a comparatively small amount of figured Samian ware, was found in this pit. About 4 feet down, just under the large stones serving as a foundation to the floor, which had sunk here, two black pear-shaped pots of

Upchurch ware, with scored intersecting lines forming lattice patterns (one of the commonest forms at Caerwent), were found, one broken lying sideways, the other entire standing straight up. At 6 feet down was found a coin of Constantine Junior, in fairly good condition, and near it, besides some Samian ware, including one small piece of Dragendorff 29, and several of Dragendorff 37, was a piece of a thin green glazed bowl with finely ribbed sides. At 8 feet 6 inches below the grass level the dish-shaped bottom was reached, formed of hard red clay.

To the south of Room 2 was a passage on the west, with no floor preserved, and on the east the small square room 3, with a concrete floor 3 feet below grass level. To the south of it again was Room 4, also with a concrete floor at the same level, with considerable traces of burning upon it. This room extended right across the malt-house, and is bounded on the south by the small room 5, with another short passage as on the north. Within the area of the malt-house some fine figured Samian was found, from 1 foot to 2 feet 6 inches below the modern level, close to the foundations of the wall.

Room 5 was approached by a doorway from Room 4, but no trace could be found of any doorway into Room 6, or from Room 6 into Room 7.

Between the early and later walls in Room 6, on the east side of the room, was found the upper portion of a large amphora upside down and broken into a great number of pieces, and a little lower down a fine bronze brooch.

The space, Room 8 on plan, most probably served as a courtyard in the last stage of the building. In the north-west angle were found, at 2 feet 6 inches down, fragments of black pear-shaped pots (two whole, or nearly so), and 3 feet 6 inches down a perfect black pear-shaped pot lying on its side at the level of the foundation of the wall.

No trace of doorways could be found in Rooms 9, 13, or 14.

The northern angle is broken away by a later wall crossing it at an angle, and by a modern slab-covered drain from the malt-house pit.

The east wing of the building was much better preserved. In the northern portion there was a corridor, 10 on plan, which turned east at its southern end. From the corridor Rooms 11 and 12 were entered, Room 11 on the west side and Room 12 on the south. Both these rooms had good concrete floors. On the threshold of Room 12 were found five coins and a piece of a figured Samian bowl (Dragendorff 37) with a tree upon it not corresponding with any of those figured by Déchelette. Of the coins two were much worn and burnt first brasses (possibly Vespasian and Hadrian), one a second brass (illegible), a silver denarius of Vespasian and one of Hadrian.

Under the concrete floor of the corridor south of Room 12 were found a mussel shell, a piece of Samian cup with ivy leaves on the edge (Dragendorff 35),

and a piece of a figured bowl (Dragendorff 37) with medallion and the figure of a cock (Déchelette 1009). The west wall of the corridor 10 had nearly all been destroyed.

Very few finds were made in the southern portion of this wing. Over the two walls west of Room 13, the half of a very large lower stone of a quern was found. The stone was conglomerate, and measured 2 feet 5 inches in diameter. In the room, and against the west wall, was a perfect lower quern stone and a quantity of fragments of bright yellow plaster on a level with the early foundation. Between the west wall of Room 13 and the early east wall of Room 8 a large quantity of broken pottery and a few bone pins were found. Just south of the north wall of Room 14 the cap of a small column came to light (fig. 5).



Fig. 5. Capital of column from eastern portion of House no. XVIII s. 1.

HOUSE NO. XIX s

In the narrow space of ground between House no. XVIII s and House no. XIX s a considerable amount of pottery was found at various depths, from 1 foot below grass to 5 feet down. The same remark applies to the space between House no. XIX s and House no. XX s. The pottery lay between the foundations, and was probably part of the rubbish thrown in to cover them. At 4 feet below grass two slabs of old red sandstone on edge were found.

House no. XIX s consists of a long range of five rooms, having a frontage of 21 feet 6 inches to the street.

Rooms 1 and 2 do not occupy the full width of the building, and appear to be of later formation, Room 1 being added to, and Room 2 cut out of Room 3. The

walls of Room 1 are not bonded into the main house wall, and the west and south walls of Room 2 are not bonded into the outside walls.

In the north-east corner of Room 1 two perfect pots were found, standing in the corner and covered with a sandstone slab; one was a small reddish-yellow bottle $4\frac{1}{2}$ inches high, the other a larger black pear-shaped pot $7\frac{1}{4}$ inches high,



Fig. 6. Wall between Houses nos. XIX and XXx showing sinkage over an ancient pit.

with scored lattice pattern of Upchurch ware. The top of the black pot was level with the floor. A doorway, well marked on the east side, leads from Room 1 into Room 2.

In Room 2 six coins of Victorinus, Constantine, Valens, and Gratian were found together on the floor level, which is shown by the doorway into Room 3 and the slab paving of the latter. Here also was found a piece of bright blue frit for use on enamelled metal work.

¹ Similar frit has been found at Caerwent previously, which seems to indicate that the beautiful enamelled objects found on the site were probably made there.

The narrow space between Room 2 and the west wall of the house was paved with large slabs of old red sandstone, $1\frac{1}{2}$ inch thick, and 3 feet below grass level. This space or passage formed a part of Room 3 before Room 2 was cut out. Probably the whole floor of the house, except Room 4, from the street to the north wall between Rooms 1 and 2, was originally a paved courtyard, Room 5 being built over the street later.

In the middle of Room 3 was a fireplace formed of slabs set up on end, and against the south wall was another furnace of larger blocks, all much burnt.

In the east wall of the room were considerable signs of subsidence (Fig. 6), clearly showing that the wall had been built over a pit and that a considerable part of the building stands on made ground. The bottom of the pit was reached on each side of the wall, 9 feet down.

About one thousand small coins were found in Room 3; they extended all over its area, but were especially numerous in the north-east part of the room near the wall. Some iron objects were also found. This small hoard consists almost entirely of minims, chiefly of Valentinian II., Theodosius and his two sons, those of Arcadius being, as usual at Caerwent, much more numerous than those of Honorius. There were also a few of Gallienus, Tetricus, Constantine I. and his family, Maximus, Victor, and one of Eugenius, mostly showing considerable wear. We may therefore date the deposit of the hoard to the first half of the fifth century A.D. Some of the coins and the whole of the room showed considerable traces of burning.

Room 4 was reached from Room 3 near the main entrance from the street. On the west wall of Room 4 some pinkish-brown plaster still remained.

Room 5 was reached from Room 4, and was paved with large sandstone blocks, about 2 feet 6 inches below grass level. A foot below these blocks was a rubble and concrete floor, probably the street, over which it was extended, and the bottom was reached 3 feet 6 inches lower. Room 5 was added later, as the straight joint at its north-west and north-east corners shows.

The main entrance to the house from the street was through a small space paved with slabs and a large doorway 5 feet wide into Room 3. The threshold stone was a 6-inch step above the slab paving of the room.

BLOCK L N.

This is an oblong building consisting of a single room to the north of House no. XIX N and separated from it by a narrow space only 1 foot in width, but it does not appear to have ever formed part of the house.

The room was paved with old red sandstone flags and has a yellow sandstone threshold *in situ* on the west side, opening upon an area also paved with old red sandstone flags. The flags outside the building had, however, sunk, and inspection revealed a round pit underneath them, which contained a considerable quantity of ordinary pottery fragments. The bottom of the pit was reached 10 feet below grass level. Under the paving a fragment of the bottom of a riveted Samian pot (Dragendorff 31) with the stamp CARVSSA was found.

Inside the block a lower millstone and half an upper one were found, and some red and yellow wall plaster. Just outside the east wall was a dark grey pear-shaped pot found standing upright, 1 foot 2 inches below the grass level. The pot was covered with an old red sandstone slab and contained the bones of a child.

To the north of Block L x were found rubbish pits, D, E, E 2, and F on plan.

Pit D at the end of the south boundary wall of the east yard of House no. XVII x contained various kinds of pottery from 3 feet down; at 6 feet 3 inches a well-preserved cream-coloured jug was found 7¼ inches high, with one handle and a bulging body tapering to the foot, and at 6 feet 6 inches an amphora with the mouth downwards. The bottom half was gone and the neck broken off; on the side were scratched the letters ^{VII}ADG.

At 8 feet down besides pottery a well-preserved horse's skull and a skull of *bos longifrons* were found. The ox had evidently been poleaxed. The bottom of the pit of solid clay was reached at 9 feet 9 inches below grass level. Pit E, south of Pit D, was only 5 feet 9 inches deep, and nothing of note was found. Pit E 2 was 6 feet 6 inches deep, and contained nothing worth noting. Pit F just north of Block L x contained a pear-shaped pot with a handle and the fragments of a glass bowl; the bottom was reached at 6 feet 6 inches below grass level.

What original purpose the space north of House no. XVIII x served cannot be said: it may have been a garden.

The whole of the space had been much disturbed. A portion of the foundation of the early wall just north of the *podium* of the temple could be traced, but only the south side of it. At the end of the continuation of the north wall of the temple area eastwards Pit A was discovered. The wall was roughly broken off, so that the construction of the pit may explain the wall ending so abruptly. In the pit a coin of Tetricus was found at about 5 feet below grass level, and some Samian pottery at about 6 feet down. One piece, the bottom of a cup (Dragendorff 33), had the stamp CELSIANI · F on it. The bottom of the pit was reached 13 feet below grass level.

Nothing more was found until at 11 feet from grass level a small sandstone statuette of a goddess (fig. 8) seated in an arm-chair came to light. The type

of face is not unlike that of the head found in 1902,¹ though the face is somewhat flatter.

Just east of Pit A was a concrete floor 3 feet 9 inches below grass level, and off it came a coin of Constantine Junior. To the north-east of this floor an enamelled bronze stand was found.² East of the floor a deep pit, marked C on plan, was also discovered, and some interesting finds were made. At 5 feet 6 inches below grass level a coin of Victorinus and some pottery were discovered, and at 8 feet down a bronze brooch and a good deal of Samian ware. From 8 feet to 12 feet a bowl (Dragendorff 37) with Déchelette 219 (dancing girl) combined with

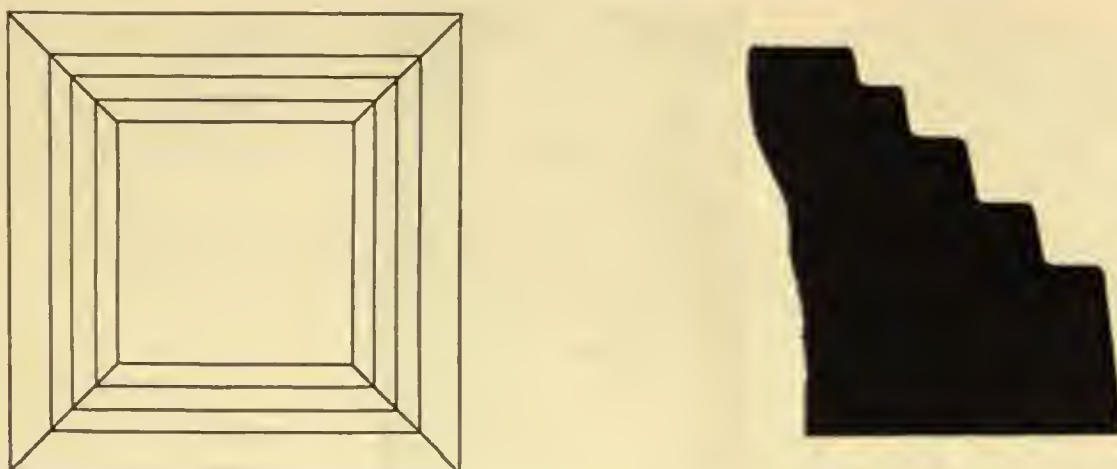


Fig. 7. Plan ($\frac{1}{4}$) and section ($\frac{1}{4}$) of small base from Pit C, north of House no. XVIII s.

191 (Venus and Adonis?). Part of the top stone of a quern was found at 11 feet down, and the other half at 12 feet. Samples of the mud were taken at 12 feet and 13 feet below grass level and sent to Mr. Lyell, who detected in them a considerable number of seeds.³ At 16 feet 3 inches down part of a large grey pear-shaped pot was found, and at 16 feet 6 inches a small base 8 inches in thickness (fig. 7).

From 18 feet to 20 feet down were found a piece of lead pipe, and some wood and rope, the latter continuing as far as 22 feet. Between 20 feet and 22 feet a fragment of a bowl (Dragendorff 37) with Cupid to right (Déchelette 236) was found. The bottom 2 feet 6 inches in diameter, in the hard clay, was reached at

¹ *Archaeologia*, lviii. 150.

² It is similar to one figured in the Catalogue of the Guildhall Museum, London, plate xiv. 65, and to one found in the south-west digging at Caerwent. Examples have also been found at Silchester.

³ These have been examined and identified by Mr. Clement Reid, whose report is given below.

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22 feet 9 inches below grass level. The pit had apparently been sunk for a well, but never used as such.

A spring was found in the side of the pit, about 15 feet below grass level, where the diameter was 3 feet 5 inches. The spring was very slight, and quite insufficient for a well supply. The pit was therefore never excavated to a diameter sufficient to allow of the insertion of the stone lining.

Pit C 2 to the north-east of Pit C was a large irregular opening. About 1 foot down, on the top, a coin of Tetricus was found; and from 4 feet to 7 feet down some pottery. At 9 feet down a perfect brooch with some more pottery.



Fig. 8. Sandstone figure of a seated goddess.

The sculptured head of a god found in the south diggings, the seated goddess (fig. 8) found in 1908, and a small "domestic" altar found in 1909, are all carved from local yellow sandstone, and are no doubt of local manufacture. The distinguished French antiquary, M. Espérandieu, to whom photographs of these Caerwent images were forwarded, writes of the goddess: "C'est de l'art indigène, si toutefois il est permis de parler d'art lorsqu'il s'agit de choses qui en sont totalement dépourvues. Les diverses régions de la Gaule Celtique nous ont fourni un grand nombre de monuments figurés, dont l'analogie avec celui de Venta Silurum ne me paraît pas contestable." M. Espérandieu also forwarded some illustrations of various Gallo-Roman sculptures from his great work *Recueil général des bas-reliefs de la Gaule romaine*, some of which are similar to our Caerwent deities. It may be mentioned that in the Musée Carnavalet, in Paris, there

is a stone torso of a man or god, with a square hole at the neck, into which the head, now missing, fitted, it being carved out of a different stone; no doubt our Caerwent god was similarly constructed, and the head was only spared because it was of no use to the lime-burners who destroyed the limestone body.

HOUSE NO. XX N.

The eastern portion of this block has not yet been excavated, and it is not certain whether all these rooms belong to one house or not. It may be taken as one house with a courtyard in the middle or as two houses having a common courtyard. In the space between Houses nos. XIX N and XX N a quantity of pottery was found, and a coin of Carausius.

Both wings seem to have had access to the courtyard, but only the western block, so far as we know at present, had direct access to the street. Both wings of the building show considerable signs of alteration.

The west wing consists of six rooms arranged somewhat like those of House no. XIX N. In the northern part of the wing the walls had been much destroyed, and nothing was found worth recording.

In the south-west angle of Room 2 a curious circular oven or kiln was discovered. It is 6 feet in diameter, and seems to have opened from the east. The kiln was constructed of sandstone blocks and very regularly paved with sandstone slabs. On the south side the blocks forming the wall distinctly show that the inside was domed or of beehive shape. The whole of the kiln has been very much burnt, and as the floor was only a few inches below the turf nothing remained to show for what purpose it had been used. It may have been a domestic oven.

Room 3 had an entrance direct into the courtyard to the east over a threshold 5 feet wide. A small rubbish pit was found just north of the earlier wall which crosses the room from east to west. The whole of the area of this room was evidently made up with rubbish to bring it to the general level. The southern part of Room 3 had direct access to the street through a porch similar to the arrangement in House no. XIX. The paved floor level, which partly covered one of the early walls, was two steps below the level of the threshold stone. Under this slab floor a considerable amount of pottery was discovered. The best piece was a large portion of a plain Samian pot. Bottom was reached some 5 feet 6 inches down. A perfect quern was found along the east wall of Room 3.

Rooms 4 and 5 are similar in plan to Rooms 4 and 5 in House no. XIX N;

Room 5, here also, being an addition at some later time. The bottom in this Room 5 was reached well below the foundations of the wall, and the filling contained pottery fragments right down to the bottom.

Room 6 forms the south boundary of the courtyard and appears to have been entered from it only, no trace of a doorway into Room 4 having been found. On the north side of Room 6 a coin of Maximianus was found, and just above the early foundation the lower jaw of a human skull, 3 feet 6 inches below grass level. On each side of the early foundation traces of pitching were found, that on the south being of the same structure as street material, which it most probably was. The east wall of Room 6 forms the west wall of the entrance to the courtyard from the street. Built into the south-east corner of the room was a block of sandstone with a hole 9 inches square and 3 inches deep in it, seeming to mark the place where the doorpost stood. On pulling down the later south-west corner of Room 17, on the east side of the entrance passage, a somewhat similar stone was found, with a hole 7 inches square and 3 inches deep. This must have been the eastern side of the original gateway. At a later time the entrance had been reduced in width by the construction of the later west wall of Room 17, which also formed the eastern boundary of the courtyard.

The gateway between Rooms 6 and 17 was paved with hard-rammed gravel and stones, extending right over the early wall, and on a level with the street paving outside.

On the west side of the courtyard, 3 feet down, a good second brass of Hadrian was found. The paving of the courtyard was the same as in the gateway, but on the north side another level was traceable underneath; the bottom was reached 5 feet 9 inches down, and pottery was found all through the filling. There seems to have been a way through the courtyard to the back of the house between Rooms 2 and 8; the passage way has a wall across it, but the wall is only one course deep and roughly built.

Of the east wing, or block, of the house practically only the walls remain, and very few finds were made.

The rooms 7, 8, 9, 10, and 11 in the north portion all had concrete floors preserved, that in Rooms 9 and 11 being especially good brick cement. The only possible trace of a doorway was from Room 9 to Room 10. The west wall of Room 11 was built over the concrete floor, and its south wall still had white plaster *in situ*. The concrete floor in Room 11 had a wide trench in it, as if at some time a wall had stood there and been pulled out. On the east side of the trench with its face against the concrete a considerable quantity of white plaster was found.

The wall between Rooms 12 and 13 had a later wall built partly on the north side of it. The later work was only one course deep on a rough foundation.

Rooms 13 and 15 had very little in them, and it was impossible to trace their eastern limits as here we had come to the boundary of Lord Tredegar's property.

Room 14, a corridor, had a doorway into the courtyard, and the early courtyard wall was found running right through it. At 5 feet 4 inches down a mussel shell and fragments of Samian pottery and yellow plaster were found.

The walls of Rooms 16 and 17 had been destroyed, a modern rubbish pit being found here.

The ground north of House No. XX was thoroughly trenched but very little was found. Two rough boundary walls run northwards from the east wing of the house, and on the east side of the easternmost a small well was discovered. The diameter was 2 feet on the top and the masonry started about 1 foot 6 inches from grass level. Water was reached at 14 feet down, and some bones and black unglazed red pottery came from this level. At 15 feet down was a perfect black pear-shaped pot, slightly cracked. The pot must have been thrown into the water or else it would have been smashed to pieces. Some more pottery fragments and a jaw-bone of an ox were found. The bottom was reached at 16 feet 6 inches from grass level, and a sample of the mud was taken, in which Mr. Lyell found seeds of several plants, identified later by Mr. Clement Reid, who gives a list of between fifty and sixty plants, chiefly from Pit C, and reports as follows:—

This is the usual flora of Roman Britain, with the same group of cultivated plants and weeds of cultivation as is found in other excavations, and the same singular absence of some of our most common species. A few of the plants have not been recorded before.

The opium-poppy is a new discovery at Caerwent, though it has been found on several occasions in Roman Silchester; its seeds were scattered on bread. The greater celandine is a plant only found in the neighbourhood of houses, and was formerly in use for curing warts; it is not improbable that it was used for medicinal purposes in Roman Britain; it has been found at Silchester also. The cultivated pea is rare on Roman sites. Seeds of coriander and dill were in common use in Rome as condiments or spices. Alexanders is a pot-herb only found near villages: it is a new record for Roman Britain. The deadly nightshade, or belladonna, was in common use in Rome for enlarging the pupils of the eye; it is one of the commonest plants in Roman Britain. Neither the vine nor the fig, both common at Silchester, has yet been discovered at Caerwent.¹

Just west of the termination of the long wall was a small pit, F 2. Nothing of any note was found in it. Bottom was reached at 8 feet 6 inches from grass level.

Another long boundary wall was discovered to the north of the pit. The wall turns north at its western end and connects up with the boundary walls of House

¹ The greater celandine still grows in profusion at Caerwent. Alexanders is an abundant plant on the "Roman" camp at Clifton.—H.

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no. VII x. At the angle where the wall turns north a very irregular-shaped pit was found. The pit was probably used for digging gravel or sand. Nothing was found in it.

The annexed plan (fig. 9) shows the progress of the excavations down to the end of 1909.

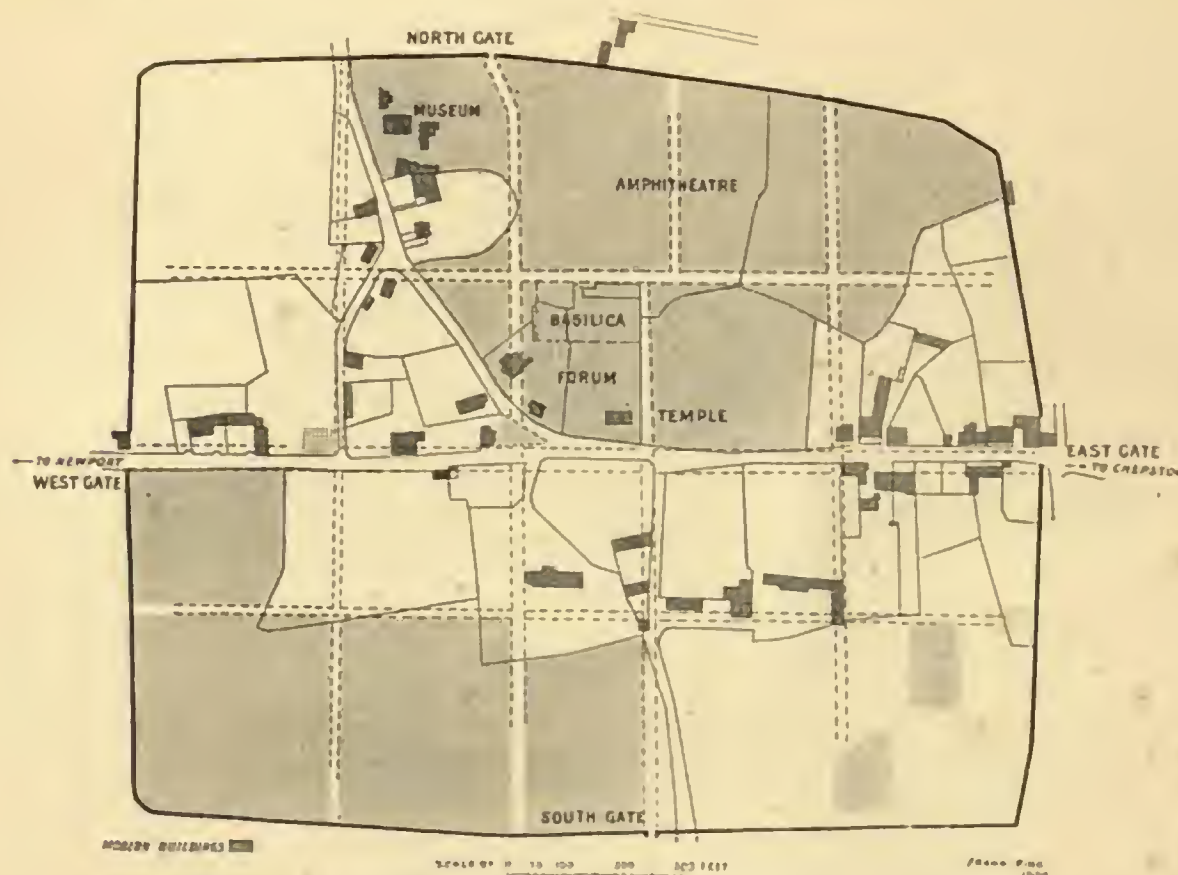
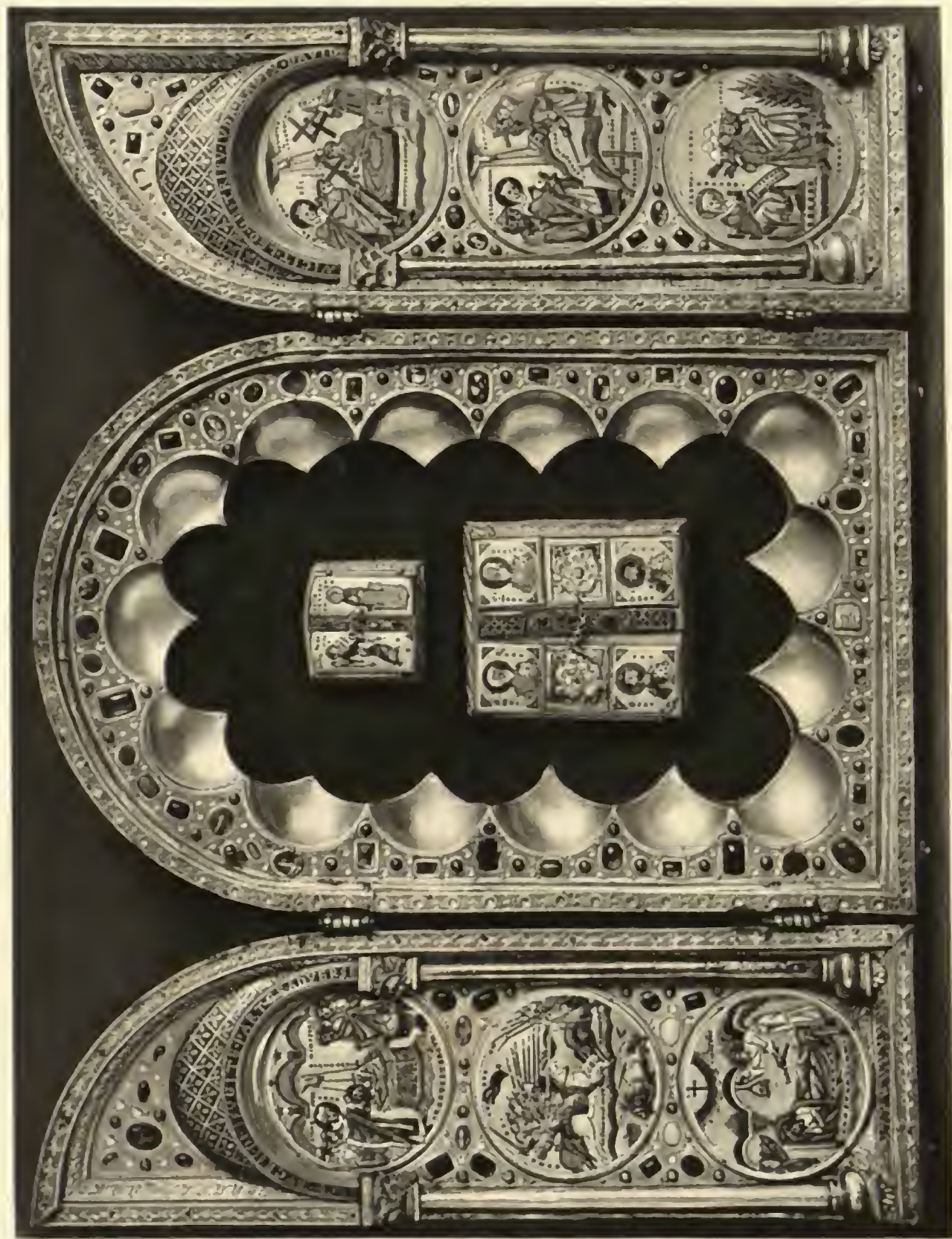


Fig. 9. Block-plan of Caerwent, showing the parts excavated down to the end of 1909.





TRIPTYCH OF THE TWELFTH CENTURY FROM THE ABBEY OF STAVELOT IN BELGIUM (4)

Widened by the Society of Antiquaries of London 1910

II.—*On a triptych of the Twelfth Century from the Abbey of Stavelot in Belgium, containing portions of the True Cross.* By CHARLES HERCULES READ, Esq., LL.D., President.

Read 2nd December, 1909.

FROM time to time the Society has the privilege of examining and publishing important examples of mediaeval art brought to its notice by the Fellows. Of these a fair number are fortunately in the safe keeping of museums or corporate bodies in this country, and such are mainly the most important. I have in my mind treasures like the relics of the Black Prince at Canterbury [would that they were better cared for !], the crozier of William of Wykeham at New College, and "King John's Cup" at Lynn. Such legacies as these are not likely to leave our shores, short of some national catastrophe. For the rest, still very numerous, that remain in private hands, there can be no doubt that the tendency at the present time is rather in favour of their finding homes in foreign than in English collections. Our riches in such directions, however, help to make London a market or exchange for works of art, and the wealthy buyer is forced to come here to increase his collections. In this way we have before us this evening a monument of mediaeval art workmanship of a kind and importance that is but seldom found in the open market.

In addition to its intrinsic and obvious merits, the triptych has an interesting and chequered history. Its more recent vicissitudes suffice to connect it with the Abbey of Stavelot (Stablo) in the Ardennes, an important link of the chain of evidence that will carry us back to the twelfth century, the period of its manufacture.

The body of the triptych is made of oak, covered on the back with velvet, once red; the middle panel has a semicircular top, the two wings in the usual form of half arches closing over and covering the middle (plate II). The principal features in the latter are the relics in their shrines, a fragment of a nail above, and two pieces of the Cross in another shrine below, disposed in a cruciform fashion. Each of these shrines is in triptych form, and set with plaques of cloisonné enamel on gold, evidently of Byzantine make, though adapted to their present positions and use by the Western maker of the relic-shrine. These will be described in detail later on. These two Byzantine triptychs are square in form, the lower one, containing the pieces of the Cross, being much larger than the other; they are set on a plain ground of cloth, with no ornament near them (in itself

a curious and unusual arrangement ¹) until we come to the broad and rich border of gilded copper edging the panel. The inner edge of this border is formed of fifteen concave plain cusps, beyond which is a hatched ground enriched with cabochon gems, or imitation gems, alternating with circular depressions which, catching the light, add considerably to the brilliancy of the general effect. The extreme edge of the middle panel has a raised border with similar hollows, and immediately within it is a plain moulding in gold. The two wings are symmetrical in design. The subjects in each are contained within an arch with plain silver columns having floriated capitals and globular bases, gilt; the semicircular arch is inscribed in capital letters on blue ground ECCE CRUCEM DNI FUGITE PARTES ADVERSE, on one arch, and on the other VICIT LEO DE TRIBU IUDAE RADIX DAVID; above each arch is a dome having a gilt trellis-work on a peach-coloured enamel ground. The remaining space is filled with a hatched ground enriched with gems as in the middle panel, and the outer edging also corresponds. Within the arches just described are six circular medallions of copper gilt and ornamented with subjects in champlevé enamel, three in either wing. The spaces between them are again filled with the same pattern of background as in the border of the middle panel, viz. hatching interspersed with gems and concave gilt depressions. The appearance of these medallions is of unusual brilliancy and richness, even for the productions of the Mosan school of enamelling, which, next to that of Byzantium, is undoubtedly the most remarkable for these attractive qualities. The ground being throughout of richly coloured gilding provides a gorgeous background for the polished enamels, and we thus have a truly attractive general effect due to the bold juxtaposition of the brightest tints. The colours used comprise a shaded blue, green, turquoise, white, and scarlet, with here and there translucent crimson (*e.g.* in the fire where the Empress Helena receives the Jews), as well as a pale plum colour; the borders are white. In the medallions on the dexter wing (plate IV) the subjects refer to the Conversion of the Emperor Constantine, on the sinister to the Invention of the Cross (plate III). In both cases the story begins at the bottom of the series. Thus in the lowest medallion of the dexter side is represented Constantine asleep, with the *Angelus Domini* standing beside the bed holding a scroll inscribed IN HOC VINCES; behind are two arches representing the palace, and above is the Cross within an arc of clouds. The next medallion represents the Battle of the Milvian Bridge, in which Constantine overthrows Maxentius. This medallion is the most brilliantly coloured of the series, and the

¹ A comparison with other similar works of the time, and particularly the triptychs in the Église de la Sainte Croix at Liège and in the Dutuit Collection in the Petit Palais in Paris, makes it almost certain that the middle panel in this triptych originally had supporting figures for the relics. It is not conceivable that a twelfth-century artist would have left the field immediately around the central subject so entirely devoid of ornament.



MEDALLIONS ON THE SINISTER LEAF OF THE STAVELOT TRIPTYCH (?)

Published by the Society of Antiquaries of London 1870



MEDALLIONS ON THE DEXTER LEAF OF THE STAVELOT TRIPTYCH. $\frac{1}{2}$

Published by the Society of Antiquaries of London, 1910

composition is more vigorous and full of action than the others, and recalls similar scenes in manuscripts of the fourteenth century. The uppermost medallion shows the baptism of Constantine by Pope Silvester. The Emperor is standing naked in a hexagonal well-like font, the Pope on one side places hands upon his head, and on the other stand *Ministri*. Above is a triple arch, from the midst of which descend rays with the Hand of the Almighty.

The three scenes on the sinister leaf give the story of the Finding of the Cross (plate III). The version adopted incorporates the features introduced into the narrative at the close of the fourth, and in the course of the fifth century.¹ The story, which begins at the bottom and reads upwards, is as follows: In the lowest medallion the Empress Helena, enthroned, receives the group of Jews from whom she demands information as to the site on which to excavate; she holds in her hand a scroll with the words *OSTENDITE LIGNVM*. On the extreme right is the fire in which the Jews are to be burned if they refuse to tell all that they know. The scroll marked *IVDAS NOVIT*, carried by one of the group, indicates that his countrymen have betrayed the foremost figure, Judas, as the real possessor of the secret. In the middle medallion, Helena stands on the left, before high ground marked *CALVARIE LOCVS*. On the right, Judas hoes up the ground, in which is seen the Cross of Christ between an inscription in two lines: *LIGNVM DOMINI ABSCONDITVR*. In the background, two figures bear the already discovered crosses of the two thieves, marked *PATIBVLA DVORVM LATRONVM*. Above is the Hand of the Almighty issuing from rays of light.

The uppermost medallion shows the dead man raised to life upon his bier by virtue of the cross held by Macarius, the Bishop of Jerusalem. Behind the Bishop stands Helen; and on the right, a man carries away the two crosses of the thieves, which have failed to perform the miracle.

The Byzantine enamels² of the two small triptychs are executed by the cloisonné process, with backgrounds of plain gold.³ They produce the sumptuous

¹ These features are the discovery of three crosses instead of one (mentioned by SS. Ambrose and Chrysostom); the identification of our Lord's cross by a miracle performed by it (Paulinus, Theodoret, Sulpicius, Rufinus, Socrates, Sozomen). Several of these authors state that the nails were found with the cross; and Paulinus relates the further miracle that the portion of the cross kept at Jerusalem gave off fragments without diminishing (Newman, *Essays on Miracles*, 299, 300). The apocryphal Story of Judas was condemned by Pope Gelasius in A.D. 494, but nevertheless obtained currency and was accepted through the Middle Ages (*Acta Sanctorum*, May, vol. iii. 367).

² I am indebted to my colleague, Mr. O. M. Dalton, for kindly describing these Byzantine enamels. He has recently made a special study of this class of work, and it therefore seemed to me that the Society would gain by his collaboration.

³ Byzantine enamels are very rarely executed by any other process, though the backgrounds are often also covered with enamel. The best-known example in which the *champlevé* process is employed is the large plaque representing St. Theodore, formerly in the Basilewsky Collection, and now in the Hermitage at St. Petersburg (Darcel and Basilewsky, *La Collection Basilewsky*, plate xiv; Labarte, *His-*

effect in which such enamels seldom fail; with their richness of colour, and the subdued reflection from the surrounding gold, they possess, if we may compare small things with great, something of the charm of the mosaics in Byzantine churches. Although upon a close examination they are hardly equal to the finest existing work of this kind, yet, viewed from a short distance, they are similar in their decorative effect.

The accompanying illustrations will give an excellent idea of their general character (plates V, VI, VII). The larger has in the interior the relic, in the shape of a wooden cross, above which two bands of gold terminating in four pearls are fixed in the form of a saltire (plate V). Four enamelled plaques fill the spaces between the arms: the upper two contain half-figures of the Archangels Gabriel and Michael; the lower two, standing figures of Constantine and Helen: the surrounding metal-work is of Flemish and not Byzantine origin. The wings, which are surrounded by borders of inlaid red glass pastes, apparently of Western workmanship, contain in the interior four plaques, each with a standing figure of a saint, the persons represented being SS. George, Procopius, Theodore and Demetrius. All the figures in the interior are accompanied by their names in enamel.

On the exterior (plate VI), the leaves have also mounts of Western origin, and the embossed flowers of the middle panels are in like manner Western. The four other panels contain gold plaques with Byzantine enamels representing busts of the four Evangelists, St. John, as is usual in Byzantine art, appearing as an old man with a white beard. All are accompanied by names, and by small enamelled corner-pieces which give the central space of each plaque the appearance of a circular medallion. On the flange of the right wing, which covers the median line when the triptych is closed, are set three fragments of mosaic-like cloisonné enamel of a common Byzantine design.

The smaller triptych has also been remounted or repaired in the West. It has in the interior a Byzantine enamelled panel with the Crucifixion between the Virgin and St. John with the usual accompanying inscriptions: "Behold thy Son," and "Behold thy Mother": above are the sun and moon.

In the interior, the leaves have only filigree and gems of Western origin; but upon the outside are two enamelled plaques, together representing the Annuncia-

toire des arts industriels, Album, ii. plate 105); even here the *champlevé* work is only partial. The metal used by the enamellers was almost always gold, or perhaps a fine alloy: copper is occasionally found, as in the Basilewsky plaque above mentioned, and in a medallion in the British Museum described before the Society in May, 1906 (*Proceedings*, 2nd S. xxi. 194). This medallion has enamels on both sides, a rare but not unprecedented feature. Of the method of firing employed by Byzantine enamellers we know little. It may be assumed that their apparatus, if less elaborate than that necessary in modern times when furnaces are heated with coal or gas, was rather more complete than those described by Theophilus about A.D. 1100 (*Diversarum Artium Schedula*, iii. 54).

tion. On the left is the archangel bearing a floriated wand; on the right the Virgin stands in front of her seat, and holds the spindle in her left hand. Above her head is the inscription, "Hail! thou that art highly favoured."

The principal colours are lapis and turquoise blue, crimson, flesh-pink, translucent green, yellow, opaque white and black. In both triptychs the conventional treatment of the nose, eyebrows and eyes is the same, and there seems no reason to suppose that they were made at different times.

To determine the precise date of Byzantine enamels is generally impossible. Only in a few examples are historical persons represented, or mentioned in inscriptions under circumstances which allow us to infer a contemporary date for the work. Such are the reliquary for wood of the True Cross now in the cathedral church of Limburg on the Lahn, on which the names of Constantine VII. and Romanus occur;¹ the crown with figures of Constantine Monomach, the Empress Zoe, and her sister Theodora, in the Museum at Budapest;² and the ikon from Chachuli in the church of the monastery of Gelat in Mingrelia, on which Our Lord is seen crowning Michael VII Ducas.³ In other cases there is probability but no certain evidence. The remarkable enamelled reliquary at Poitiers may be that sent by the Emperor Justin II. to St. Radegund, but the identity cannot be definitely proved.⁴ In yet other cases the circumstances of discovery provide a *terminus post quem*: a small enamelled cross was found in the tomb of Queen Dagmar of Denmark (+ A.D. 1212);⁵ a larger cross, apparently of greater age, was discovered in the reliquary chest of Leo III. (A.D. 795-816) in the *Sancta Sanctorum* at the Vatican, and probably belonged to the original treasure.⁶ As a rule, however, we are compelled to fall back upon a judgement based on the resemblance of types represented to those found in illuminated manuscripts and other works of art, or on merits and defects of style; this is the case in the present instance. If we omit from the comparison the surviving enamels of the earliest centuries,⁷ and confine ourselves to

¹ E. Aus'm Weerth, *Das Siegeskreuz der Byzant. Kaiser Constantinus VII. und Romanus II.*, 1861, plate 1; Labarte, *Histoire des arts industriels*, ii. 83 ff.; N. Kondakoff, *Die byzantinischen Zellschmelze der Sammlung Dr. Alexis von Swenigorodskoi*, 209.

² F. Bock, *Kleinodien des heiligen Römischen Reichs*, plate 38; E. Molinier, *L'orfèvrerie*, 52; Pulszky, Radisiès, and Molinier, *Chefs-d'œuvre d'orfèvrerie à l'Exposition de Budapest*; Kondakoff, as above 2 and 3 ff.

³ Kondakoff, as above, pp. 135 ff. and figs.; G. Schlumberger, *L'Épopée byzantine*, i. 137, 188.

⁴ Barbier de Montault, *Le trésor de Sainte-Croix de Poitiers*, plate i; E. Molinier, *L'orfèvrerie*, 38-40.

⁵ G. Stephens, *Queen Dagmar's Cross*, 1863; Kondakoff, as above, 178, figs. 51 and 52; *Archæological Journal*, ii. 166; E. Molinier, *L'orfèvrerie*, 57.

⁶ Ph. Lauer, *Monuments et Mémoires, Fondation Eugène Piot*, xv, 1906, 36 ff. and plate vi; *Edinburgh Review*, no. 420, 1907, p. 471; *Civiltà Cattolica*, 1906, part ii.

⁷ Cloisonné enamelling may have been practised at Constantinople as early as Constantine, and is certainly as old as Justinian, though the region from which it was introduced into the capital is not known with certainty. The majority of existing Byzantine enamels belong to the period between the close of the iconoclastic disturbance and the thirteenth century.

those of the flourishing period of Byzantine enamelling between the second half of the tenth century and the sack of Constantinople in A.D. 1204, we shall be disposed to place the present small triptychs after the middle of the period. If they have not all the qualities of the Limburg reliquary, they are superior to the work produced after the middle of the twelfth century. At that time the tones became harder and the general effect more dry; the flesh tints lost their colour and became a dead unnatural white; we may compare a similar degradation in the case of the painted enamels of Limoges, where the flesh tints of Suzanne de Court are distinguished in a similar way from those of earlier and better artists. These defects are not conspicuous in the work now under discussion, and it seems on the whole probable that these enamels had not been long in existence when Wibald took them home from Constantinople in 1155 or 1157. The first half of the twelfth century, or at the earliest the close of the eleventh, would appear to be their most probable date.¹ It has already been observed that their appearance has been changed by the additions made in the West by Flemish goldsmiths.

The relic of the True Cross, if obtained by Wibald, thus left Constantinople about half a century before the majority of similar objects which formed part of the Crusader's loot, and were distributed throughout Europe after the sack of A.D. 1204.² It may be recalled that a gold cross containing a relic of the wood, once belonging to Baldwin I, became a valued possession of Bromholm Priory in Norfolk, whence it probably disappeared at the Reformation.³

The modern history of this triptych seems to be well confirmed and to establish its connexion with the Abbey of Stavelot. In November, 1792, the French army had just entered Liège. The Prince Abbot of Stavelot, Cornelis Thys, fled from his abbey for refuge beyond the Rhine, where the Chapter had already sent for safe custody the archives and plate of the community. The retable of the high altar seems to have been carried away on this occasion, for it is related by Thomassin⁴ that in 1794 the metal composing it was melted down, and served for the support of the fugitive abbot and his companions in their exile. From another account it would appear that the abbot obtained hospitality eventually with a family named Walz living at Hanau, near Frankfurt. On his departure he left with them a large, heavy chest, and this was

¹ See also Kondakoff, 220; F. Bock, *Byzantinische Zellenschmelze*, 181-4.

² See Comte Riaut, *Des dépouilles religieuses enlevées à Constantinople au XIII^e siècle par les Latins*, etc.; in *Mémoires de la Société nationale des Antiquaires de France*, vol. xxxvi. (Separate copy in the Library of the British Museum.)

³ *Ibid.* 57, 189. The original information is derived from Ralph of Coggeshall, ed. Duncin, 1852, p. cxxv, and Roger of Wendover, *Chronicon* (ed. of the English Historical Society, 1841-5), iv. 90. This relic was abstracted from Baldwin's treasure by an English chaplain, who brought it to his own country and disposed of it there.

⁴ *Mémoire statistique du département de l'Ourthe*, 1879, p. 250.



BYZANTINE TRIPTYCH WITH A RELIC OF THE TRUE CROSS, OPEN. $\frac{1}{4}$

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consigned to an attic, where it remained for years. On being opened it was found to contain a number of church vestments and other similar things, among them the triptych now in question. The Walz family distributed the vestments among the religious foundations of the neighbourhood, but retained the triptych, which has been preserved as a precious relic for about a century. The owner has consistently refused to lend the triptych to exhibitions, and it did not even figure in the splendid collection of enamels shown at Düsseldorf in 1902. It has therefore remained in seclusion, and comparatively but little known, up to a few weeks ago, when Mr. Durlacher persuaded the owner to cede it to him.

This story, joined to the style and appearance of the work itself, furnishes good *prima facie* evidence of the Stavelot origin of the triptych. But a still closer bond is claimed for it by Dr. Franz Bock.¹ In describing the Byzantine enamels in the well-known Svenigorodskoi collection, he takes the opportunity of comparing with them any other specimens of the same kind of work that he has been able to trace, and among his descriptions he includes that of the Hanau triptych. He made independent investigations on his own behalf, though he gives no details of what these were, and comes to the conclusion, not only that he had before him a real relic of the vanished glories of the abbey church of Stavelot, but further that it was an example of the pious luxury of the great Abbot Wibald, the learned statesman and counsellor of emperors, who died in 1158. This particular conclusion he founds on a description of the church of Stavelot written in the eighteenth century by two Benedictines named Martène and Durand and published in their *Voyage littéraire de deux religieux bénédictins de la Congrégation de S^t Maur* (Paris, 1724). They were much struck by the riches of the monastery, and particularly the good order in which the muniments were kept: "Dans une ancienne chapelle, qu'on dit que l'abbé Wibaldus s'étoit faire bâtir sur le modèle de Sainte Sophie à Constantinople. Nous y vîmes un ancien cartulaire, qui renferme un si grand nombre de chartes des rois de la première race, qu'il n'y a que Saint Denys qui puisse lui disputer pour le nombre." In connexion with the present subject, it is of interest to note that further on they call attention to "une très-belle croix d'or, dans laquelle il y a du bois de la vraie croix, que Wibaldus rapporta de Constantinople, et le chef de Saint Alexandre martyr". What, however, principally concerns us, in connexion with Dr. Bock's theory, is their description of the high altar. They say: "The decorations of the church are very beautiful . . . the altar magnificent. The front, of silver gilt, represents the descent of the Holy Ghost on the Apostles, whose figures are in relief, with this inscription, *Factus est repente sonus tanquam advenientis spiritus vehementis, et repleti sunt omnes Spiritu Sancto*. The retable, much richer, is in solid gold. It represents the chief mysteries of

¹ *Byzantinische Zellenschmelze.*

the Passion and Resurrection of Our Lord. It is the work of the great Wibald, whose figure stands on one side, and on the other that of the Empress Irene." This description, written in the year 1718, is perfectly clear, and is, in addition, confirmed by that of Saumery,¹ who uses almost identical words in describing the altar and retable, little more than twenty years later.

But confusion is imported into the matter by a discovery made in the archives at Liège in 1882. M. van de Castele, the keeper, found among a number of papers relating to an action at law brought by the abbey of Stavelot in 1662, a drawing of the retable of the altar at Stavelot, which differs materially and essentially from the description given above. In place of the mysteries of the Passion, the drawing shows a series of scenes from the life of St. Remaclus, the patron saint of the monastery, and there is no sign of the figures of Wibald or the Empress. Nevertheless, in a prominent position on the retable, as shown in the drawing, is a long inscription, beginning "Hoc opus fecit abbas Wibaldus"; with a note of the cost (100 marcs in all) and a penal clause against any one destroying it.

It might be urged that the drawing is fanciful, and represents something that had no actual existence; but the contrary seems to be fairly proved by the existence of two of the enamelled medallions forming part of it, which are still preserved in the princely museum at Sigmaringen. They are shown in colours in Dr. von Falke's monumental work,² and from the figure would seem to be of bolder and somewhat coarser work than the medallions on the Hanau triptych, and in my judgement do not serve materially in deciding its authorship.

Although, however, it would be satisfactory if the statements of the Benedictines could be reconciled with the Liège drawing, it is not really essential to the present subject to effect the agreement. The evidence for the triptych is fairly conclusive of its connexion with the abbey of Stavelot; the character of the work is in itself so marked, and is directly comparable with so many dated examples of the same kind, that it can be safely set down as of the time of the great Abbot Wibald, and we thus get two facts that help us towards determining one other point of interest, viz. the name of the artist who made it.

The Benedictine travellers speak of Wibald as "the great", and in truth he appears to have been a remarkable man. A member of the most learned of the monastic orders, he led a busy and useful life.³ As statesman, as the intimate counsellor of the German emperors, and their intermediary with the Popes in weighty affairs of state, he might have found occupation enough. But he still found time and energy for the official labours of his abbacy, which comprised

¹ *Délices du Pays de Liège*, 1743.

² *Deutsche Schmelzarbeiten*, plate xxiv.

³ See J. Janssen, *Wibald von Stablo und Corvey*, Münster, 1854.



BYZANTINE TRIPTYCH WITH A RELIC OF THE TRUE CROSS. CLOSED. $\frac{1}{1}$

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the supervision of three establishments, that of Stavelot, of Corvey in North Germany, and of Monte Cassino in South Italy, and he particularly devoted himself to the embellishment of his churches, especially of that at Stavelot. Born in 1098, he was educated at Stavelot, and was known as one of the most learned men of his time; he became abbot in 1130, and died in 1158. In spite of his numerous avocations and manifold responsibilities he found time to make two pilgrimages to Constantinople, as we have seen.

The numerous relics of church furniture of the twelfth century still remaining in the Meuse and Rhine districts amply show how important was this branch of artistic development, and it can scarcely be doubted that a personage of the standing of Abbot Wibald would have had in his employ the best craftsmen that the time and the country could provide. The evidence on the subject is unfortunately slight. In 1148 the abbot writes a letter to "the goldsmith G.,"¹ pressing for the delivery of certain work he had ordered. This reference has been generally accepted by the authorities as indicating the well-known artificer Godefroi de Claire. This artist was himself a person of some distinction. A Walloon and citizen of Huy, he had been in the train of the emperors Lothair and Conrad III., by which he had not only acquired great wealth, but had also become an important personage. In 1174 Radulphus de Zaehringen, Bishop of Liège, caused the bodies of the saints Mangold and Domitian to be encased in two shrines richly worked, the shrines having been made by the celebrated goldsmith Godefroi de Claire, called the Noble, and placed in the church of Notre Dame at Huy.² Towards the end of his life he made large gifts to churches, particularly to that of Neufmostier, where he ultimately entered as a regular Augustinian canon and spent the rest of his life, still continuing, however, to work at his art.

In an original manuscript necrology of this abbey (which has the additional interest as containing the name of Peter the Hermit) the name of Godefroi is entered as follows, without any year³:

November D^o viii K^o Commemoratio Godefridi aurificis fratris nostri (another later hand adds, in the same line) Iste Godefridus aurifaber civis Hoyensis et postmodum ecclesie nostre concanonicus vir in aurifabricatura suo tempore nulli secundus per diversas regiones plurima sanctorum fecit feretra et cetera regum vasa utensilia. Nam in ecclesia Hoyensi duo composuit feretra, turibulum, &c.

¹ Jaffé, *Biblioth. Rer. Germ.* i. 194.

² Laurent Mélat, *L'histoire de la ville et chateau de Huy*. M. Vierset Godin cites a little book printed in 1685, entitled *Incunabula Ecclesie Hoyensis*, giving an inventory of the treasures of the collegiate church at Huy, drawn up in 1274 by Joannes de Appia, the warden. This inventory states that these shrines were made at the costs of the Chapter by Godefroi de Claire, otherwise called the Noble, and that the bodies were solemnly placed in them in the year 1172 or 1173. Gilles d'Orval, a contemporary chronicler, gives the actual date as June 15, 1173 (*Bulletin des Commissions royales d'art et d'archéologie*, 1^{re} Année, 1862, p. 397).

³ *Bulletin de l'Inst. archéol. liégeois*, xiii. (1877) 221.

This is confirmed further, for what it may be worth, by the chronicle of Jean d'Outremeuse.¹ "L'an xi^elxxxiii revient Godefroit, appedain de Huy, à maistre d'orfeivrie, li miedre et li plus experts et subtils ovriers que ons sawist en monde à chel jour, et qui avoit cerchiez toutes regions; si revient à Huy en mois de jule; ilh avoit demoreit bien xxvij ans hors, si avoit eu maintez regions diverses bons ovrages, fietres et altre queilconques ovrage, etc."

The dates here given do not agree with that of 1148 as that of the letter written by Wibald to the "goldsmith G." In that year the latter must have been at home, and an absence of twenty-seven years would make his return take place in the year 1175, not 1173, as Jean d'Outremeuse has it. The probability is that 1174, the year given by Mélart, is the right one for Godefroi's return, which would allow an absence of nearly the necessary time.

The two shrines made by Godefroi for the two saints Mangold and Domitian at Huy still exist, but sadly shorn of their pristine beauty by restorations in the sixteenth century, and even curtailed in actual size. Their principal ornaments are large scale figures of embossed silver, quite different in character from anything in the triptych now in question; but, on the other hand, these figures are identical in style with those on the triptychs in the Church of the Sainte Croix at Liège and in the Dutuit collection in Paris. In both of these, moreover, all the details of the subsidiary decoration are again identical with those of our triptych, the six enamelled medallions of which, again, are identical with those of the wings of the Dutuit triptych. Thus a chain of evidence, independent of the history of the Hanau triptych, tends to confirm its attribution both to Stavelot as its place of origin, and Godefroi de Claire as its maker. Examples of the work of this accomplished artist are to be found both in the British and Victoria and Albert Museums, and a detailed account both of these and of all other pieces ascribed to Godefroi is given in the fine work of Dr. von Falke, where no less than fifteen plates are devoted to him and his school. Among these the shrine of St. Heribert (made about 1155) is one of the most important, and on Falke's plates, 85, 86, and 87, the circular enamelled medallions from it are shown. The resemblance in style between these and the similar medallions on the Hanau triptych is very striking, and lends strong additional confirmation to the attribution of both to Godefroi de Claire. The date of Abbot Wibald's death, 1158, moreover, would point to approximately the same time as the period of the manufacture of the triptych we have now before us.

¹ Ed. Bormans, iv. 457.



LESSER TRIPTYCH, WITH RELIC OF ONE OF THE NAILS, OPEN AND CLOSED. $\frac{1}{2}$

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THE MANOR OF EIA, OR EYE NEXT WESTMINSTER

The divisions represent half-mile squares

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III.—*The Manor of Eia, or Eye next Westminster.* By WM. LOFTIE RUTTON,
Esq., F.S.A.

Read 20th January, 1910.

IN the days of King Edward the Confessor the Manor of Eye next Westminster, entered as Eia in Domesday Book, was held of Queen Edith by William the Chamberlain. This William, to use the significant words of the record, lost the manor (*manerium amisit*) at the Conquest by William of Normandy, when it fell into the possession of Geoffrey de Manneville or Mandeville (latinized as Magna Villa), who, as perhaps chief of the Conqueror's companions in arms, profited in the acquisition of some 118 English manors, situated in ten counties, chiefly in Essex and Suffolk.¹ This baron by many tenures, about twenty years after the Conquest, being in possession of the Manor of Eye adjoining the estate of the Abbey of Westminster, and no doubt desiring in a measure to atone for his misdeeds, gave the manor to the Abbey. He, in the words of the grant, "for his soul and the soul of Athelays his wife buried in the cloister of Saint Peter, where next to her he also was to be buried, and for the souls of his sons and daughters, gave to Saint Peter of Westminster the manor which near his church he had held, namely Eye, in perpetual heritage," etc. The grant is undated.²

In this grant there is no definite indication of the situation or extent of the manor, and simply from what is known of the Abbey possessions before and after the grant have its location and limits been determined, and laid down on the modern map. Thus Eia is believed to have been the western extension of the estate which lay between the Tyburn stream (A B C) entering the Thames (at A) 200 yards above the position of Vauxhall Bridge, and the Westbourne

¹ Dugdale, *Baronage*, i. 200.

² Eia was in possession of Mandeville at the time of making the Domesday Survey, commenced (as conjectured) in 1086; and as the grant was confirmed by the Conqueror, who died in September, 1087, its date must have been 1086 or 1087. Abbot Gislebert (or Gilbert) Crispin, 1082 (? 1085)–1117, witnessed it.

The name of the manor is printed "Ese" in the *Monasticon Anglicanum*, ed. 1817 (i. 309), and is similarly rendered in the transcript confirmation of the grant, Cotton MS. Faustina A. 111, f. 57^b. But the writer learns from the Dean of Westminster that in the Abbey *Liber Niger* (f. 56) the word is "Eye" in both the grant and confirmation; and that in an older cartulary, the "y", being dubiously written, has apparently by transcribers been incorrectly read as "s".

stream (D E) entering the river at Chelsea (E) near the Royal Hospital, while from south to north the manor extended from the river to the highway now Oxford Street. Within these limits the area computed on the map is 1,000 acres. In Domesday Eia is assessed for ten hides. Half of the manor was in demesne, and as arable land, meadow, and pasture were comprised, it is apparent that a fair proportion of solid, cultivable ground lay above the marsh on the low level bordered by the river. There is, however, no mention of wood as might be expected.

The earliest statement of the western limit of the Abbey estate is that often quoted from the Saxon charter of c. 951.¹ At "Bulinga Fen", which is identified with Tothill Fields, the boundary was said to follow "the old ditch" (A B) running north from the Thames to "Cuford" or Cow Ford, and thence to run up along "Teoburn" or Tyburn to "the wide heere street" or military road, now Oxford Street (C). "The old ditch," which probably had been made for drainage, meeting the Tyburn stream at Cowford (B), eventually became that course of the stream known as the Aye or Tyburn Brook, and later, in its polluted condition, as the King's Scholars' Pond Sewer. Tachbrook Street,² Pimlico, still marks the course. Thus at Cowford (B), which appears to have been where the Tyburn crossed the Chelsea Road near the site of Buckingham Palace, the stream became divided, part running along the road, afterwards James Street, to Westminster Abbey as a mill-stream, part flowing through "the old ditch" into the Thames.

About 1086 the Tyburn stream ceased to limit the Abbey estate, Mandeville's grant of Eye (or Eia) having extended the estate full half a mile westward to the stream we know as the Westbourne. Afterwards, in 1222, it became necessary, in order to settle a dispute between abbot and bishop, to define the limit of the parish of St. Margaret (which is understood to have covered all the homeland of the monastery of Westminster), the monastery and the parish being exempt from the jurisdiction of the See of London. Cardinal Archbishop Langton and other church dignitaries were the arbitrators, and their decree was to the effect that "the Parish of St. Margaret began at the water of Tyburn running into the Thames" (*Incipit igitur Purochia S. Margaretae ab aquâ de Tyburne decurrente in Thamisiâ*).³

Now, as the Tyburn had formed the western limit c. 951, and since that date the Abbey estate (generally assumed to be identical with the parish of St. Margaret) had been extended fully half a mile westward to the Westbourne, a difficulty has arisen as to the interpretation of the decree of 1222, which

¹ Kemble, *Codex Diplomaticus*, iii. 72.

² "Tachbrook" for "The Aye Brook" is suggestive, but is questioned.

³ Wharton, *Hist. de Episcopis*, 252.

seems to re-state "the water of Tyburn" as the western limit. The decree further declares that beyond the stated boundary were the *villae* of Knightsbridge, Westbourne, and Paddington, which pertained to the parish of St. Margaret, and these *villae* lay in sequence immediately beyond the western limit of Eia, as seen on the map. It is also to be said that the Abbey's possession of Eia, recognized by the Norman kings,¹ seems to have had a much firmer basis than that of the more distant lands mentioned. Yet, while these are allowed by the decree to be included in St. Margaret's, it seems that the nearer great manor is excluded.

Mr. George Saunders, Fellow of this Society and of the Royal Society, made in 1833 a careful and complete "Inquiry concerning the situation and extent of Westminster at various periods".² He considered the stated western boundary of c. 951 and 1222 to be identical, that at both times the *Tyburn* was the declared limit. He recognized that after 951 the Manor of Eye had been added to the abbot's estate, but that it had not been included in the "franchise of Westminster", and, therefore, not within the parish of St. Margaret.

On the other hand it has been thought that the terms "aqua de Tyburne" may have referred to the western stream which we know as the Westbourne, and that in earlier times, distinction not being made as later between the two streams coming from kindred sources, both were regarded as Tyburn water.

The greater probability, however, is that Eye, not having been included in the endowment of Edward the Confessor which carried extensive liberties over the lands granted, was not within the franchise of Westminster nor the parish of St. Margaret. It appears to have been accounted a detached portion of St. Martin's-in-the-Fields, even before the positive constitution of that parish, previous to which evidences are found of dispute touching the full authority of the abbot.

It has been assumed and stated that the large Manor of Eye or Eia was, at an indefinite time, divided into the three smaller manors of Neyte, Eybury, and Hyde. But no topographer has attempted to define the limits of these reputed manors, and although there is nominal mention of them, it will be submitted that on close examination their existence as distinct manors is not supported.

The three-manor theory is not very old, dating not earlier than 1833. Lysons, writing in 1795,³ is curiously inaccurate as to the abbot's grant to Henry VIII in 1536, even as to the date, and referring to the "ancient manors of Neyte and Hyde" he offers no explanation in regard to Eybury. The editors of *Monasticon Anglicanum* in 1817 were not more definite than Lysons; indeed, they simply

¹ Besides a copy of the Conqueror's confirmation of the grant in the Abbey *Liber Niger*, f. 56, the same contains, f. 6, that of Henry I, which notes also the confirmation *per breve* of William II.

² *Archæologia*, xxvi. 223.

³ *Environs*, ii. 113, 181.

repeated him. Sir Henry Ellis, a keen archaeologist, during forty years Secretary of this Society, and twenty-eight years Principal Librarian of the British Museum, wrote in his "Introduction to Domesday Book" (1833) that the Manor of Eia was granted to the king "by the name of Eybury". Thus it is evident that he thought Eia and Eybury synonymous, that Eybury was not merely a division of the great manor but the whole of it. Here, however, he does not mention Neyte and Hyde, and thus avoids the question of divisions. The same year (1833) Mr. Saunders (before quoted) made his "Inquiry", and addressed the "result" to Sir Henry Ellis. He it was that established the three-manor theory. He says: "Eia after the date of Domesday appears to have been divided into the three manors of Neyte, Eubery (*sic*) and Hyde." Mr. Walcott on "Westminster", Mr. Davis on "Knightsbridge", and indeed every writer subsequent to Mr. Saunders, has followed his lead. This question of three manors will have further reference as we proceed.

That the abbots of Westminster had a manor-house at Neyte, a residence apart from the Abbey although in its vicinity, is a well-known, interesting fact. The principal events which occurred at Neyte, viz. the deaths of two of the most notable abbots, Litlington and Islip, and its occupation on two occasions by Plantagenet princes, John of Gaunt, Duke of Lancaster, and Richard, Duke of York, are repeated in all references to the place. Yet no writer, even in our own critical time, has been able to point definitely to the site of the manor-house; it has been a matter of speculation. This oblivion of an historical spot probably results from the neglect of those authors who wrote the local history to mark the situation of the mansion at a time when at least a remnant of it must have been standing, or, if entirely demolished, whilst it was well within the memory of living people. For instance Strype, editing and adding to Stow's *Survey* in 1720, was surely in a position accurately to record the place, yet he seems to have made neither visit nor inquiry, and could only write of the market-gardens which had been laid out in the locality. He has nothing to say about Neyte Manor-house, and leaves it to posterity to puzzle whether "the Neat Houses on the banks of the Thames, inhabited by gardeners" had any connexion with it. Widmore, who came next, was minor canon of the Abbey, and also, as librarian, the keeper of the muniments. Yet, in his *History of the Church of St. Peter* (1751), although he refers to the manor-house he says no more of its situation than that it was "near Westminster"! Lysons, in his *Environs* (1795), is likewise ambiguous, saying merely that "Neyte manor adjoined Knightsbridge". Mr. Mackenzie Walcott, Curate of St. Margaret's, writing his *Memorials of Westminster* (1849), had not discovered the site, although he gave a useful clue to it by quoting reference to the manor in a Close Roll of 28 Henry VIII. Walford, in *Old and New London*, simply copies Walcott. Even Dean Stanley, in his *Historical*

Memoirs of the Abbey (1876), did not help the question of site by indefinitely representing "The Manor of Neyte, as a favourite country-seat of the Abbots by the river-side in Chelsea".

Later writers have not been more precise or earnest in search, and, indeed, the prolonged ignorance appears ridiculous when it is discovered that the site was found by the Ordnance Surveyors and duly marked on the map of large scale (5 feet to the mile) issued in 1872. On that map is clearly indicated "the Site of Neyte Manor-house", but as it is marked only on the large scale map, the omission on the more generally used edition (25:344 ins. to the mile) may serve as some excuse for its remaining unknown. The present writer shares the reproach of having overlooked the Ordnance revelation, which remained hidden until he had successfully finished his quest. Then the laurel of discovery had to be dropped; but there remained at least the value of corroboration, and the satisfaction that the long missing site was determined beyond doubt.

At the Record Office the Close Roll referred to by Walcott proved to be the grant by William Boston, the last abbot (and first dean under his real name, Benson), to the king of the greater part of the Abbey possessions in and near Westminster, and others at a distance. Nominally, the transaction was an exchange for the Priory of Hurley in Berkshire, but virtually this "exchange" of 1536 was the second act of confiscation made by the predatory monarch, who had in 1532 seized, also under semblance of exchange, much of the monastic property for the making of St. James's Park and the completion of the environs of his recently acquired Palace of Whitehall. The third and final act of confiscation was the suppression of the monastery in January, 1540 (n.s.).

At present we are especially interested in Neyte. It is the first item of the grant of 1536; which, although in Latin, we will quote in its English form as incorporated in the Act 28 Henry VIII. Cap. 49 (*Statutes of the Realm*, iii. 709), thus:

All that site, soil, circuit, and precinct of the Manor of Nete within the compass of the moat, with all the housings, buildings, yards, gardens, orchards, fishings, and other commodities in and about the same site.

Here the *situation* of the manor-house is not indicated, but the fact that it stood within a moat serves as a clue for further search. With this in mind a plan is soon found in the Crace Collection, British Museum (Portf. x. 21), the date 1614, showing "Nete House" in an enclosure formed by a moat (fig. 1). The house is built around three sides of a quadrangle open to the road passing in front, where doubtless the moat was bridged. The road which makes a loop to enclose the premises is named "Willow Walk". The plan is a copy of one in the archives of the Grosvenor estate, and it is endorsed: "A Plan of the Manor of *Eybury*." A second plan, dated 1675, is equally satisfactory, and again the title is: "A Map

or Plot of the Lordship of *Eburie*" (fig. 2). Here the moat is gone, but "The Nete House" is indicated, in the "bird's-eye" draughtsmanship of the time, by a little very roughly sketched elevation representing a building, apparently a remnant, terminating in a tower crowned by what may be taken as a broken parapet. As these rude little sketches are probably the only existing indications of Neyte Manor-house they are certainly valuable. And it is submitted that the enlarged facsimiles now reproduced, showing the moat-surrounded house with a central

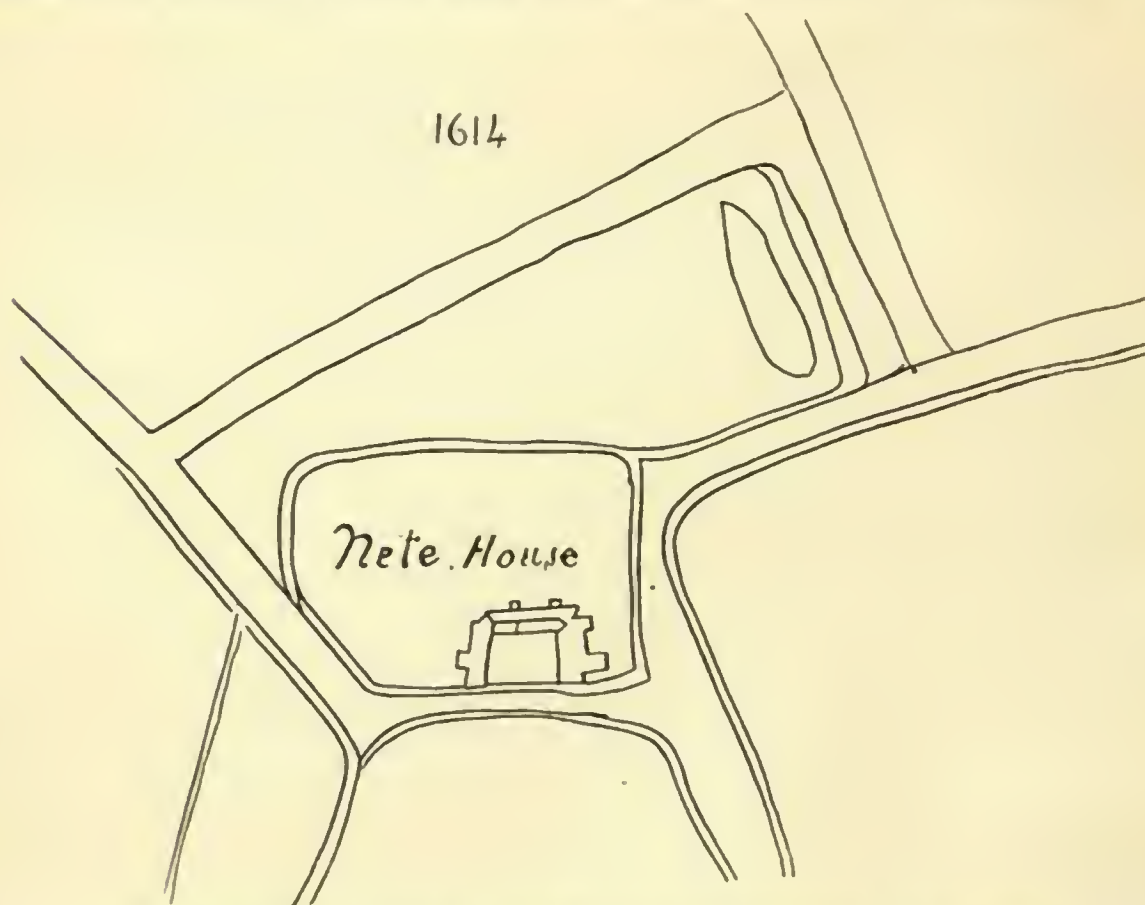


Fig. 1. Rough sketch of Neyte or Nete Manor House in 1614, from the Crace Collection.

court, tower, and broken battlement, fairly represent a mediaeval residence, and as such are convincing evidence of the abbot's house, the object of our search.

Having these traces of the manor-house on the old plans of 1614 and 1675, it is not difficult to find the situation on the modern map. It is a matter of common knowledge that Warwick Street, Pimlico, follows the line of the former Willow Walk: the change of name is to be regretted, though partially it survives in "Willow Street" on the east side of the Vauxhall Bridge Road opposite the point where Warwick Street starts to run westward. The bridge-road marks nearly the western verge of the obliterated Tothill Fields. Along Warwick

Street, about 700 yards from its east end, a street on the south side preserves the loop which once enfolded Neyte House; and Warwick Street, like its forerunner the Willow Walk, was not continued in its direct course until 1869. Then it was driven straight on, and now between it and Sutherland Terrace (late St. George's Row) on the south is enclosed a block of buildings which covers the site we are seeking. It is here that the Ordnance Map of large scale notifies "Site of Neyte Manor House", thus corroborating the result of the search now related.

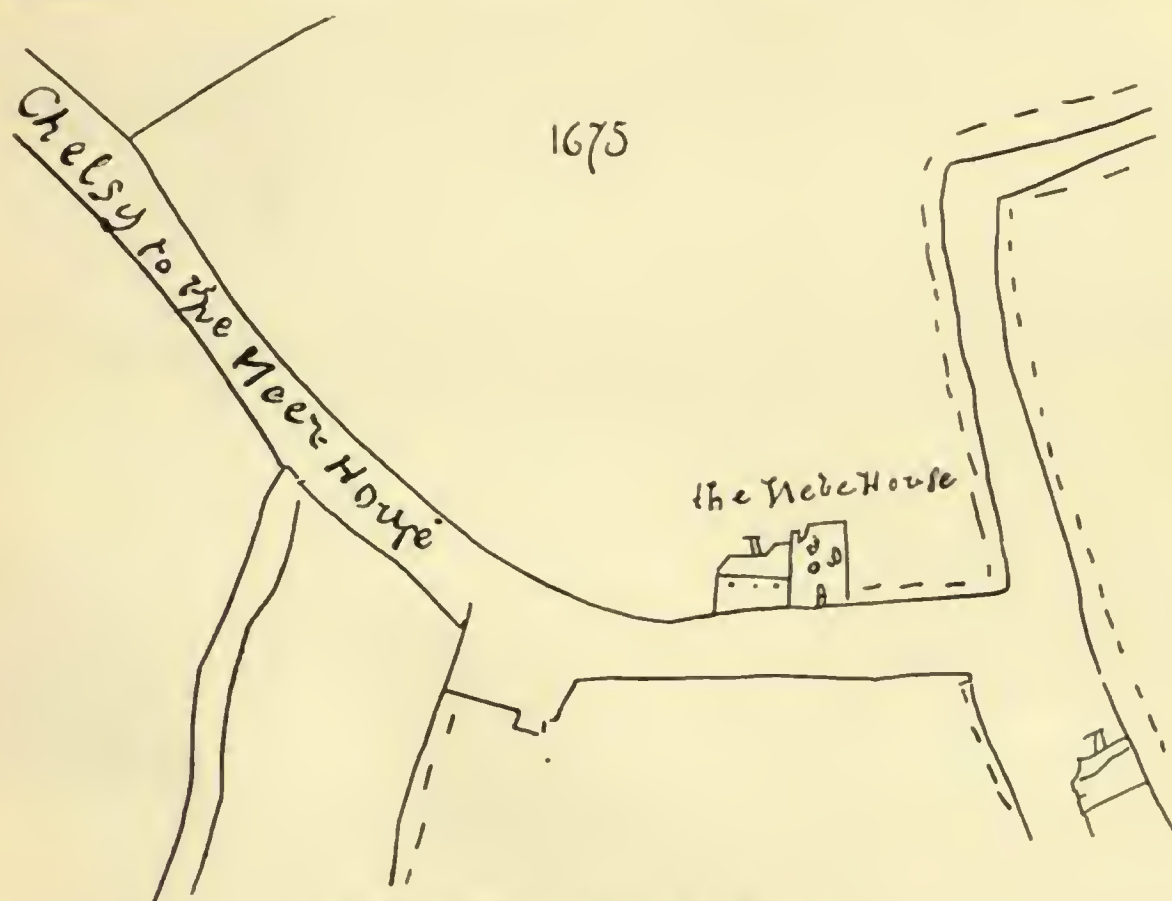


Fig. 2. Rough sketch of Neyte or Nete House in 1675.

Needless to say there is now nothing in these ordinary stuccoed brick houses to remind the passer of the abbot's retreat which once stood there, or of the pleasant gardens which remained long after the monastic brethren had ceased to tend them.¹

¹ Mr. Larwood has perhaps too ingeniously suggested that the name of the public-house, "The Monster," which now occupies the site (and by him said to be the only London tavern with this sign), is a corruption of "Monastery"; "Minster" is also conjectured. The present writer offers on a subsequent page what may possibly appear to be the more probable origin of the name. The house is now modern, but has a standing of at least a century and a half; once famous for its tea-gardens, its present notoriety is that of an omnibus station.

The situation of the manor-house being assured, we will now follow chronologically all that is learnt of its history.

The earliest reference found is in a cartulary of the Abbey under date 5th February, 1314, when Thomas, Vicar of St. Martin's-in-the-Fields, renounced all tithes in Neyte and Eybury.¹ This is the first of those occurrences which seem to indicate the disputed claims of the abbot.² The early history of St. Martin's is obscure; the parish is not supposed to have been constituted until thirty or forty years after the above date; yet here we have mention of a vicar who evidently had claimed tithes in Neyte and Eybury which the abbot had compelled him to renounce. Eventually, however, when St. Martin's parish was authoritatively constituted, about 1361 or a little earlier, Neyte and Eybury were included in it.

The abbot appears to have been temporarily dispossessed in 1320. It is found that at this date the Manor of Neyte was in the hands of the king, a somewhat bewildering fact until later its solution is discovered. At the Record Office, among the Ministers' Accounts, under dates 1320-2, are a number of writs, receipts, indentures, etc. in relation to the business of one Roger de Gretford, who in the documents is variously termed "bailiff of our lord the king at la Neyte", "guardian of our manor of la Neyte", "keeper (*custos*) of the King's manor of la Neyte", "bailiff of la Neyte near Westminster". The transactions relate to cattle which were collected at Neyte, and thence transferred to other places. Now, in the use of the place as a cattle-dépôt or stock-farm in 1320, and probably earlier, we seem to find the origin of its name: "La Neyte," a place for neat, meaning cattle or cows. The suggestion is even stronger in the later form "Neat Houses", equivalent to Cow Houses!³ The name may seem to us strangely inconsonant with the dignity of the manor-house of the abbots of Westminster, yet we know of other English mansions with homely names, and although we may not find "neat" as prefix, its equivalent "cow" heads a score of names in the gazetteer. Indeed, in the same county of Middlesex (parish of Hendon) there is a Cowhouse Manor (Hodsford and Cowhouse) which, moreover, was a possession of the same Abbey.⁴

The perplexing designation of la Neyte as the king's manor happily has its

¹ "Abstract of Charters in a Cartulary of Westminster Abbey in the possession of Samuel Bentley," 1836, Brit. Mus. [The MS. Abstract may perhaps be found at the College of Arms.]

² Even earlier, in 1308, Edward II by letters-patent (see Calendar) "exempted John de Benstede during life, in respect of his dwelling-house in Eye near Westminster, called Rosemont, from livery of stewards, marshals, and other ministers of the king. And at the same time he had licence to crenellate his house." "Rosemont" is suggestive of "Rosamund's land" (and "Rosamond's Pond") enclosed in St. James's Park, but that land seems to have been beyond the limits of Eye.

³ Professor Skeat, *Etymolog. Dict.*: "Neat, black cattle, an ox or cow (E.). *Neet*, both sing. and pl. (M.E.). *Neat*, unchanged in the plural (A.S.)."

⁴ *Monasticon Anglicanum*, ed. 1817, i. 326; Lysons, *Environs*, ed. 1810, ii. pt. i. 395.

explanation in the cartulary before quoted. Dated at Winchester 1st May 18 Edward II. (1325), the king gave an acknowledgement "that he did not hold the manors of Eybury and Neyte unless at the will of the Abbot and Convent of Westminster". And Edward III. in his first regnal year gave up (*liberavit*) "the manor of Eybury which his father had held". Further, at the same time an inventory was made of the goods of the late king at Eybury, and there were found at the place 60 cows and 500 sheep, and also a *columbarium* or pigeon-house. Here, again, we have evidence of the cattle-dépôt.

At the Public Record Office are found other bailiffs' accounts of "la Neyte" for the period during which it was in the hands of Edward II. and Edward III.¹ From these rolls some interesting information can be obtained. The rolls form a series referring undoubtedly to the same manor. The accountant is termed indifferently the "bailiff of the manor of la Neyte", or "la Neyte juxta Westminster";² the "bailiff of the king of his manor of la Neyte with Eybury" (*de la Neyte cum Eybury*).³ There was one manorial court, which in 1316-17 was held on Wednesday, the Vigil of SS. Simon and Jude [27th Oct., 1316], and Monday before the Feast of St. Gregory the Pope [7th March, 1316-17]. In 1324-5 this court is called the Court of Eybury. The issues of "the pleas and perquisites" of the court of the manor are returned yearly on the accounts; we find also the return of rents of free tenants and rents and works of customary tenants, showing clearly that "la Neyte" or "la Neyte with Eybury" was a manor and then formed only one manor. There was a moated house or grange at "la Neyte" at this time, to which King Edward II. seems sometimes to have retired. This house had a hall and an inner hall, a pantry and buttery, the repairs upon which are frequently referred to. On the roll for 1319-20 are items for the cost of the houses within the moat of la Neyte, including nails and iron for a post in the chamber next the king's chamber.⁴ Mention is also made of the garden at "la Neyte".⁵ There was another house or grange at Eybury, probably that later known as Eybury Farm, parcel of the same manor, the repairs upon which are from time to time accounted for.

It is curious to note that fifteen customary tenants of the manors of Staines and Laleham paid a composition in lieu of mowing "le Markedmed" in the Manor of "la Neyte".⁶ The river walls, which were probably of earth, required constant attention, and references to them frequently occur. The theory that the manor was a cattle-dépôt is borne out by these accounts. They show the great stock of cattle kept there and the large household which was maintained

¹ Ministers' Accounts (P. R. O.), Bundle 919, nos. 12 to 24.

² *Ibid.* Rolls, nos. 12, 13, 14, 17.

³ *Ibid.* Rolls, nos. 19, 20.

⁴ *Ibid.* Roll no. 17.

⁵ *Ibid.* Roll no. 13.

⁶ *Ibid.*

to look after it. Although much of the land was given up to pasture, as is to be expected in the low-lying district near to the Thames, yet there was a good deal of arable land, probably in the northern part of the manor, where the land rises.

Among the place-names occurring within the manor are the following: Twantiacres (Twenty Acres hereafter referred to), Pourtelane, arable land at Rodeland, Mabelycroft, and Wyndmellehul (Windmill Hill), la Loggemed, the wall from Mareflete to Abbotesbregge, pasture at Knytbrugg (Knightsbridge), Gosepole (Goosepool), and Markyngmed. The Tybourne is constantly mentioned, and [river] wall, garden, &c., at Burgoyne, possibly the same as Bulinga Fen, which has been identified with Tothill Fields.

Perhaps the most interesting reference to a place-name on these rolls is one that occurs on the roll for 1316-17: "Of 16s. 11d. from Thomas Chese and Gille (*Egidia*) his wife of the farm of 29 acres of land at Osolveston leased to them for term of their lives."¹ Osolveston is the old form of Osulveston,² the hundred in which a large district outside London is situated. Mr. Reginald A. Smith, F.S.A., states³ that at the presumed point of intersection of a road from Notting Hill "with Watling Street south of the Marble Arch once existed a Roman geometric stone". A stone similar to London Stone for long existed here, and was to be seen in 1822 a few yards south of Cumberland Gate, but was covered up in that year and was perhaps dug up when the Marble Arch was erected. This stone is said to have been known as Ossulstone, and at such a landmark we should expect the hundred court to have been held, thus giving rise to the name of the hundred. This spot would be within the Manor of "la Neyte" with Eybury.

The disputes as to jurisdiction had not been settled by 1344, when a murder having been committed by a tenant of land in "Eye by Westminster", the king granted the escheated lands to his barber-surgeon. The culprit, however, "was indicted before the coroner of the liberty of the Abbot of Westminster, taken by the Abbot's bailiffs, arraigned before them in the Abbot's Court, and there adjudged to be hanged." Whereupon the abbot entered upon the lands and held them as his escheats. The king claiming the same, a commission was appointed to make inquisition; but the judgement is not discovered.⁴ Probably this was the last dispute of the kind, for soon afterwards (between 1345 and 1361, says Mr. Saunders) the parish of St. Martin-in-the-Fields was constituted, and the abbot's Manor of Eye or Eia forming part of the parish may have been henceforth included within the franchise of Westminster.⁵

¹ Ministers' Accounts (P. R. O.), Roll no. 14.

² *Feudal Aids*, iii. 383.

³ *Victoria County History*, London, i. 32.

⁴ *Cal. Patent Rolls*, 1344, pp. 238, 297, 321.

⁵ Such is Mr. Saunders's solution of an obscure and tangled matter. He says also: "In 1393 a

"La Neyte," having been for some years in the king's hands, returned to the abbot in 1327; and there are signs of his living at the manor-house in Widmore's record (p. 89) that in 1338 Abbot Henley "remitted to the Convent nine dishes of meat, six conventual loaves, and three flagons of beer, which they used to furnish daily for the abbot's table when he was at Westminster or the manor-house of Neyte". In 1362 Nicholas Litlington, the renowned building abbot, succeeded Langham, then made Bishop of Ely, afterwards Archbishop of Canterbury, and eventually Cardinal. Very fortunately the new abbot's constructive talent was encouraged and enabled by the riches, amounting in modern value, it is said, to £200,000, bequeathed by his predecessor for the purposes of the Abbey. The west and south walks of the cloister, the abbot's house (now the Deanery) with its accessories "the Jerusalem" and other chambers, the great dining-hall and kitchen, still witness to the work of Litlington. Even as prior his building ability had been exercised, for Widmore relates (p. 102) that in the January before his election as abbot "a high wind had blown down most, if not all, of the Abbot's manor-houses, and that these he rebuilt within three years, and better than they were before". This closely touches our subject, for we may fairly suppose that the house at Neyte was at this time rebuilt by Litlington in style and capacity befitting the dignity of the abbots, and even on a scale as not long afterwards to attract the eye of princes seeking habitation. The name, however, "la Neyte" or "Neet House" was not changed, its old association with cattle remained.

The distance was but a direct mile from the Abbey, yet it was sufficient to ensure the abbot's peace whilst temporarily retired from the governing charge of the monastery. The situation, however, being remote and solitary, my lord's retinue was required to be of sufficient strength to deter marauding attack; his only neighbours at Neyte were the tenants of Eybury Farm, scarcely 300 yards distant to the north-west. The direct way from the Abbey to Neyte would be across the desolate Tothill Fields to their western verge marked by the Eye stream, *i.e.* the Aye or Tybourn Brook. That stream would be crossed by "the Abbot's Bridge", and the marsh thence to the moated manor-house would be traversed by "the Willow Walk", the willow-bordered causeway raised slightly above the general level. The marshy condition of the stretch of land, about half a mile in width, lying between the causeway and the Thames can be judged by the large fields and intersecting drains seen on the map of 1614; and that the Willow Walk was a causeway appears in the name "Cawsey Haw" given to a piece of ground adjoining it. The abbot's usual way, however, would probably be somewhat circuitously by Tothill Street, Petty France, and

charter was obtained from Richard II, which is enrolled in the Exchequer [probably now at the Record Office], and affirms that the abbot in right of his monastery was seised of the Manor of Westminster in the town of Westminster, and in the parish of St. Martin-in-the-Fields." *Archæologia*, xxvi. 236-9.

the road which became James Street as far as its meeting with the Chelsea Road, at which point the stream was again crossed by the Eye Bridge. Here was probably a small hamlet clustered about the Eye Cross, the "Cuford" mentioned in Abbey documents, the Cowford of Saxon times. Buckingham Palace nearly occupies the situation. At Eye Bridge the abbot and his company would turn south-west and follow the Chelsea Road about three-quarters of a mile to "Eybury" (or Eybury Farm, its later name), immediately after passing which a by-road to the left led to Neyte Manor-house. Another route, easier to travel by than the rough roads of the time, would be the smooth and "silent highway" of the Thames, and my lord abbot, with his attendant brethren, taking his barge at Westminster would be rowed up the river to a landing-place opposite Neyte, and then on his mule or on foot traverse the five hundred yards of meadow which lay between the river and the manor-house.

We may assume that the house after its probable destruction by storm had been rebuilt by Litlington in commodious and even stately fashion, and that he often resided in it during the twenty-four years of his abbacy. Obviously it was convenient during the rebuilding of the abbot's house at Westminster. At Neyte he closed his life, the 29th November, 1386; his body was carried to the Abbey for interment, but the obsequies are not found recorded as in the case of a successor a century and a half later.

Three years after Litlington's death John of Gaunt, Duke of Lancaster, and self-styled King of Castile, was returning from his fruitless pursuit of a crown, yet using the empty title in virtue of his wife's claim. His Savoy palace had been destroyed by Wat Tyler's rebels eight years previously, and being, as he wrote, yet destitute of a dwelling convenient to the Parliament to which he had been summoned, he besought the abbot, William of Colchester, for the temporary use of Neyte Manor-house. His letter making this request is fortunately preserved with the Abbey muniments; its interest is not lessened by its quaint old French and dubious orthography:

Depar le Roy de Castille et de Leon, Duc de Lancastre. Tres cher en Dieu, et nostre tres bien ame. Nous vous salvons tres sovent, et porce que nous sumes comandez par nostre tres redoute seigneur le Roy pour venir a cest son prochein Parlement a Westminster, et que nous y duissions estre en propre person, toutes autres choses lessees en cide et secour del roialme Dengleterre, et sumes unqore destitut de lieu convenable pour nous et nostre houstell pour le dit Parlement, nous prions tres cherement et de cuer, que vous nous veuillez suffrir bonement pour avoir vostre manoir del Neyt pour la demoere de nous et de nostre dit houstel durant le Parlement susdit. En quele chose fesant tres cher en Dieu et nostre tres bien ame vous nous ferrez bien graunt ease et plesaunce, paront¹ nous vous voloms especialment bon gree savoir et par tant faire autre foiz pour

¹ pront = paront [?].

vous et a vostre request chose agreable de reson. Et nostre seigneur Dieux vous eit touz jours en sa tres seinte garde.

Donne souz nostre prive seal a Narbourne le xxvii jour de Septembre [1389].

[Endorsed] A nostre tres cher en Dieu et tres bien ame labbe de Westmonster.¹

It is presumed that the Duke's wishes were met, as refusal would scarcely have been salutary.

Half a century after John of Gaunt's death there was another royal occupation of Neyte, it being on record that the Duchess Cecily (Nevill), wife of Richard, Duke of York, the White Rose leader (great-nephew of John of Gaunt), here in November, 1448, gave birth to John their fifth son, who died young.²

We find also that the unfortunate Dame Alianore Cobham (Duchess of Gloucester), persecuted on a charge of sorcery and witchcraft, was detained at Neyte three days before final banishment to the Isle of Man; this in January, 1443 (n.s.).³

A lease of the Manor of Eybury was granted by Abbot John Islip in 1518. In this he conveyed to Richard Whasshe for a term of thirty-two years

the Manor of Eybury with all lands and appurtenances excepting certain closes called the "Twenty Acres", *lying opposite* the Manor of Neyte on the south, and "the Abbot's Mead", with a pasture called "le Calschaw" (Causeway Haw), *lying off* the eastern part of the said Manor of Neyte. The annual rent was £21, and there were several obligations. Eighteen cartloads of good hay were to be cut and carried into the Manor of Neyte for the Abbot's use, part at the tenant's expense, part at a fixed price. At Christmas a boar worth ten shillings was to be provided. All fuel required for the Abbot's use was to be got and carried from the Thames bank to the Manor of Neyte at one penny per cartload. A weekly cartload of necessities for the hospitality of the Abbot. The transport of goods from the Manor of Neyte to those of Hendon and Laleham. The repair of all buildings and sheep-folds. The tenant to have wood from the Manor of Eybury required as "heybote, ploughbote, cartbote and fyerbote", but all loppings of trees growing on the reserved land and in the Manor of Neyte are excepted for the Abbot's use. The tenant is prohibited from conceding the manor and other premises to any person without consent of the Abbot. The Abbot has power in case of failure of rent, or delivery of the boar or the hay, to distrain for same after forty days. The lease was given at the Chapter House of the Abbot and Convent at Westminster, the sixteenth day of in the eighteenth year of the reign of King Henry VIII.⁴ (See Appendix I.)

One other event only is there to notice: the death at Neyte of Abbot John Islip in 1532. He was virtually the last of the abbots, for his successor, William

¹ The letter of John of Gaunt is exhibited in the Chapter-house of the Abbey. As transcribed by Joseph Burt, Assistant Keeper of the Public Records, it is printed in *Archaeological Journal*, xxix. 144.

² William of Worcester, *Liber Niger*, ed. Hearne, 1728, ii. 424, 526.

³ *The Brut, or Chronicles of England*, pt. ii. 482; Early English Text Soc., 1908.

⁴ "Conventual Leases," No. 53. For the discovery of this and other papers, and for much kind assistance, the writer is greatly indebted to Mr. Salisbury of the Public Record Office.

Boston or Benson, who made the surrender and became dean, is scarcely allowed on the roll. Islip had governed the monastery thirty-two years, and his ability and energy had been exercised on the fabric of the noble church. At the eastern end the chapel of Henry VII. had been completed under his supervision; the western end had also been finished, the exterior niches filled with statuary, and the towers raised to a height a little above the eaves of the nave;¹ communication between the abbot's house and the church was made by a passage terminating in the small gallery yet seen overlooking the nave at its south-west end; and finally the Islip chapel was built for the abbot's sepulchre. In the first years of his abbacy, during the reign of the religious-minded Henry VII., he had witnessed the abbey in the full dignity of ceremony and authority; and he had lived to see the time of abasement and spoliation. In the year of his death (1532) the greed of Henry VIII. had already deprived the Abbey of much property in its immediate vicinity, viz. land and houses for the making of St. James's Park and the completion of Whitehall; and this, done under the pretence of exchange, was but the prelude of further and entire confiscation. So it was no wonder that this calamity having befallen him, and foreseeing more, the poor abbot, like King Hezekiah in misfortune, became sick unto death, much needing the consolations of his faith as materially depicted in the beautiful obituary roll which has fortunately come down to us. He died "at Neyt beside Westminster, the 12 day of May, being Sunday, about four or five of the clock in the afternoon, the twenty-fourth year of King Henry VIII."

The record of his obsequies, deposited at the College of Arms, is exceedingly interesting. We are admitted into Neyte Manor-house, where, in the large parlour hung with black cloth and the escutcheons of the abbot and monastery, was set the chest containing the cered body of the deceased covered with a rich pall of cloth of gold tissue. By it four great tapers burned day and night; around were the constant mourners and watchers, and from time to time masses for the dead were recited. There the body lay four whole days, and on Thursday about two of the clock came the fathers of the house, with the monks, and the Abbot of Bury St. Edmunds in pontifical vestments. And the appointed offices having occupied an hour, about three o'clock the long procession set out for Westminster. First were two conductors with black staves to keep back the people who lined the way. Then in succession came the cross-bearer, four orders of friars from Canterbury, brotherhoods of priests and clerks of the pope, the clergy of St. Martin's and St. Margaret's, the Abbot of Bury *in pontificalibus* with his assistants in goodly rich copes, gentlemen gowned and hooded in black, Richmond and Lancaster heralds in their tabards of the king's arms. Preceding the coffin came twenty-four poor men, habited in black

¹ Thus indicated in Dart's *Westminster Abbey*.

gowns and hoods and bearing torches. The coffin was borne by six yeomen of the deceased, and other six relieved them. The banner of Our Lady was carried, and surpliced priests bore branches of white wax. Twelve yeomen carrying staff-torches were about the corpse, and immediately after followed the Lord Windsor as chief mourner, with six others, two and two. Then more gentlemen, and the yeomen and farmers of the deceased abbot, all habited in black. Lastly, men and women of Westminster and other places ended a procession so long that "the trayne was from Neyt until Toutell Street", a full mile.

Arrived at the Abbey the body was received by the Abbot of Bury and his assistants and carried into the quire, where it was set under a goodly hearse "with many lights and majesty"; and the mourners took their places. Then the *Dirige* was solemnly sung by the monastic brethren, and after other ceremonials were completed the mourners proceeded to a chamber over the chapel of the deceased, where they partook of "spiced bread, sacket, marmylate, spiced plate, and divers sorts of wine in plenty". And during the funeral feast "they of the church did bury the deceased in the chapel of his building, which was hung with black cloth garnished with escutcheons, and over his sepulchre a pall of black velvet, and two candlesticks with angels of silver and gilt, with two tapers thereon, and four about the corpse burning still". Thus in solemn state was buried the virtually last of the Westminster abbots.¹

Four years after Islip's death the king, whose rapacity had fed and grown on his first spoils, again seized, under legal semblance of exchange, grant, and Act of Parliament, all the property of the Abbey beyond its immediate precincts. Boston's grant of 1536 follows as Appendix II to this paper; at present we will trace the fate of Neyte Manor-house, then surrendered with the rest. It seems to have remained in the king's hands until his death, soon after which it was given, in 1547,² by the boy-king Edward VI. or his Council, to Sir Anthony Browne, K.G., one of the magnates of the time grown rich on monastic spoils. He had already Battle Abbey, Cowdray, and much else, and may have coveted Neyte as a residence near to Court; but he did not long retain it, for death claimed him the year after his latest acquisition. Less than half a century later Neyte, having reverted to the Crown, is found, with 108 acres of land attached, in the tenancy of farmers, by name Linde and Turner, who are heard of because of complaint brought against them before Lord Burghley, the queen's high steward, on the ground that the 108 acres being mostly Lammas land (*i.e.* common during Lammas-tide) they had enclosed and divided it with

¹ The account of the funeral is fully quoted in *Monasticon Anglicanum*, ed. 1817, i. 278, and, with facsimile reproductions of the Obituary Roll, in *Vetusta Monumenta*, iv and vii.

² Roll 1 Ed. VI, pt. i, mem. 15.

new hedges.¹ This was in 1592; the tenant of the neighbouring and much larger Eybury Farm was similarly arraigned, but the judgement does not appear.

In 1614 the old manor-house, to judge from the plan we have noticed, appears to have stood intact within its moat. A few years later it had become a place of entertainment for strolling Londoners, which character it maintained until its extinction. Curiously, information to this effect (directly derived from Mr. Wheatley's *London*) is contained in a play of the time. For in Philip Massinger's *City Madam*, licensed 1632, is extolled "The Neat House for musk-mellons and the gardens where we traffic for asparagus" (Act III, sc. i). The abbot and his monks had left a fruitful garden here, the forerunner of the "Neat House Gardens" which eventually covered the whole area between the Willow Walk and the Thames; and as the gardeners required houses "Neyt, or Neat House" became expanded into "Neat Houses" as the name of the locality.

Next we have our friend Pepys here, and he, ever seeking enjoyment, finds it five times during the years 1661-1668 at the "Neat Houses". He it is who first writes the name in the plural (Massinger gave it in the singular), and from the entries in his *Diary* it is evident that other dwellings had sprung up, and that his visits were not limited to one spot. The first recorded visit is in 1661. He had taken coach to Chelsea to see the lord privy seal on business, and by some mischance, the coach not having waited, he with his companion had to walk back to Westminster. So taking the Chelsea Road they by and by "came among some trees near the Neat Houses"; the spot was probably where the by-road led off to the manor-house. Here some whistling "gave them suspicion", perhaps an idea of highwaymen; but it was only the signal of a friend, who joined them in their walk. Once he takes boat and goes by river to "the Neat Houses over against Fox Hall (Vauxhall)" to see a man dive; that of course was some distance from the manor-house. Another time coming down the river from Barnes Elms he lands to buy a melon, doubtless of the kind that the dramatist had appreciated. And once in convivial mood after the play, he with his wife and Mistress Knipp "went abroad by coach to the Neat Houses in the way to Chelsea, and there in a box in a tree (*sic*) they sat, and sang, and talked, and eat"; but the rose was not without a thorn to poor Mistress Pepys, who, he adds, was "out of humour, as she always is when this woman [Knipp] is by". This time at least the place seems to have been the monks' old garden, the manor-house, or a remnant of it, probably still standing. Pepys's last mention is in May, 1668, when he "met Mercer and Gayet and took them by water first to one of the Neat Houses, where they walked in the gardens, but [finding] nothing but a bottle of wine to be had, they, though pleased with the gardens,

¹ Strype, ed. Stow's *Survey*, bk. vi. 78.

went to Vauxhall, where with great pleasure they walked; and then to the upper end of the further retired walk, where they sat and sang, and brought a great many gallants and fine people about them, and upon the bench they did by and by eat and drink and were very merry". Such were the relaxations of the distinguished public servant, Mr. Pepys.

One of the Neat Houses of entertainment was kept by old Mistress Gwynn, mother of Nell, the king's favourite. Her untimely end is all we learn of her; it is recorded in two of the journals preserved, and thus in *The Domestic Intelligencer* of 5th August, 1679: "We hear that Madam Ellen Gwin's mother sitting lately near the waterside at her house by the Neat Houses, near Chelsea, fell accidentally into the water, and was drowned." Two printed sheets of the day now found in the King's Library, British Museum, satirically relate the occurrence. One is a metrical "Elegy upon the never to be forgotten matron Old Madam Gwinn who was unfortunately drowned in her own fishpond on the 29th of July 1679". The other is a prose account, equally satirical and unflattering to the reputation of the poor woman, whose death is attributed as much to brandy as to water.

The plan of 1675, from which we have taken the rough indication of Nete House in elevation, shows that at this time it, and the two large fields always attached, were owned by "Edward Peck, Esq." The owner of the neighbouring Eybury Farm was Mistress Mary Davies¹, a child-heiress of ten years old, whose marriage the next year with Sir Thomas Grosvenor led to the formation of the great Grosvenor Estate. That estate was gradually extended over all the land between the Willow Walk and the Thames, excepting Nete House and the two large fields above mentioned. This extension is clearly evident in an excellent plan of 1723, made expressly to show the then extent of the Grosvenor property. To avoid reduction of scale that portion only is now reproduced in which we are expressly interested.

The figures distinguish the several parcels, etc. enumerated in the abbot's grant of 1536, and correspond with those in the list given as Appendix II to this paper. No. 1 is the parcel containing Neyte Manor-house, which, or part of which, may have remained as late as 1723, the date of the plan. No. 2 is the field called "the Twenty Acres". No. 3 (here divided) is "the Abbot's Meadow". These two fields were always attached to the manor-house² (we observe "Balywick of Neat" written on No. 2), and they, with No. 1, did not belong to Grosvenor in 1723, but to a Mr. Stanley.³ No. 4 (marked "Eybury

¹ "Dammison" on the plan is presumed to be a mistake for Davies.

² These fields, nos. 1, 2, 3, are shaded on the plan.

³ Probably of that branch of the Stanley family sometime seated at Stanley House, Chelsea. See Lysons, *Environs*, ii. 124. "Stanley Place" is now found close to the site of Neyte Manor-house.

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Manor") is the Eybury Farm lying a little to the north-west of Neyte. The vicarage and schools of St. Michael's (Chester Square), and Ebury Square close by, now cover the ground ; but the actual site of the farm-house was along the road on the north-east side of the modern church of St. Philip.



Fig 3. South portion of the Manor, from a map of 1723.

The causeway called "the Willow Walk" stretches on the map over the marsh between Tothill Fields and the manor-house, on reaching which a loop is made around the premises ; the loop is still apparent, though Warwick Street, which has taken the place of the Willow Walk, is now continued westward. The Eye stream, No. 10, was crossed by "the Abbot's Bridge".

In a plan of 1727 the house is gone, and the ground vacant on which it had stood, though still belonging to Mr. Stanley. The Chelsea Waterworks had had their beginning in 1722, a canal cut the by-road between Nete House and Eybury Farm, and "Chelsea Bridge", a wooden structure, now formed the connexion.

On Rocque's maps of 1746 "The Neat Houses", a group of disconnected buildings, occupy the site.

A few years later gardens were opened here which went by the curious name "Jenny's Whim". Of Jenny nothing is known but her "Whim", which seems to have consisted of fantastically laid out gardens, where, at certain spots, the unsuspecting visitor treading on a spring would be startled by the sudden appearance of a figure, angel or monster, confronting him. These gardens were for some time fashionable, and visited even by such exquisites as Horace Walpole; but before their extinction, towards the end of the century, they had become disreputable. Their successor was "The Monster" and its tea-gardens (see footnote, *ante*), for which it is now suggested that one of Jenny's monster figures may originally have served as the sign.¹

Of the manor-house there is nothing more to relate; its very site passed out of knowledge. As has been said, at the critical period of its demolition it was unrecorded by Strype, who, in 1720, only noticed the luxuriant market-gardens of the Neat Houses which supplied London and Westminster with "*Asparagus, Artichokes, Cauliflowers, Musmelons*, and the like useful Things that the Earth produceth". The gardens flourished more than a hundred years later. On Cary's fine map of 1819 they are represented in full development, but in 1834 they are diminished, and streets are being laid out. Not, however, until 1840 were the gardens quite obliterated, and their area overspread by the rising streets of Pimlico. The Willow Walk had become Warwick Street about 1844, though not until 1869 was that street driven straight on towards the bridge over the railway and canal, the loop continuing as of old to enfold the site of Neyte Manor-house.

The great Manor of Eye or Eybury was intersected by Knightsbridge highway, north of which lay about 482 acres, south of it about 608 acres. Of the northern moiety Hyde occupied about 320 acres, and the remainder included, as we learn in the abbot's grant of 1536 (Appendix II), "a great close belonging unto Eybury," supposed to be now represented by Grosvenor Square, and the Brick Close, lying west of the Conduit Mede, which is well known to have lain along Bond Street. Further north, along the Oxford highway, were various

¹ Walford, in *Old and New London* (v. 45), quotes all that is recorded of "Jenny's Whim", and he reproduces from the Crace Collection a view in 1750 of Jenny's Whim Bridge; the wooden bridge over the canal was for a time so called. "The Monster" in 1820 is also represented.

Eybury tenancies, the holders of which had to be compensated for damage when the Corporation of London in 1439 were permitted by the abbot to lay pipes for conducting water from the Paddington springs.

The southern moiety of Eybury, the 608 acres, appears to have been divided even before the forced surrender of 1536. We do not learn what extent of Eybury Richard Whasshe had by his lease of 1518, though from the exemptions of the great fields, the Twenty Acres and the Abbot's Meadow adjoining Neyte Manor-house, we surmise that the tenant had the remainder of the land lying north of the river. When, however, in the deed of 1536 we read of "the Manor of Eybury", said to have been in the tenure of Richard Whasshe, we



Fig. 4. Ebury Farm, or Lordship House, 1675. The road which passes the house is now Buckingham Palace Road, and that on the left hand Pimlico Road.

conceive that reference is intended to Eybury Farm. Half a century later we have further information regarding this farm. In 1592 the name of Queen Elizabeth's tenant is still Whasshe, though probably son of the former tenant. He had 430 acres of meadow and pasture, perhaps arable land besides. Also a large portion of ancient Eybury had been taken to form a distinct farm of Neyte, which, as before noticed, contained 108 acres.

The farmstead of Eybury or Ebury lay along the Chelsea Road, scarcely 300 yards north-west of Neyte House. On the plan of 1614, in a square enclosure, some buildings surround one of modest size probably representing the dwelling-house. It is simply designated "Eybury", and thus named in the midst

of the manor it may be thought to have originally represented its "bury" or manor-seat afterwards transferred to Neyte. Sixty-one years having elapsed we have it again in the plan of 1675, a portion of which is now reproduced.

The house appears to have been rebuilt, and, if we may trust the little roughly sketched elevation with three tiers of windows, it has now the importance of three stories. It stands by the roadside with garden attached, and against it is written, "Lordship House and Garden." This probably was the residence of Alexander Davies, the father of the heiress who, as already noticed, brought the estate to the Grosvenors, for on his tomb in St. Margaret's churchyard Davies (or Davis) is described as "of Ebury". The descent of the farm from Whasshe to Davies has not been traced. The latter had died in 1665, and, his widow having remarried, the child-heiress at the date of our plan was probably living with her relations, the farm having as tenant the Edward Boynton named in the table. The next year (1676) little Mary Davies, at the age of eleven, became the wife of Sir Thomas Grosvenor, Baronet, of Eaton in Cheshire. The estate grew, and its extent almost half a century after the marriage has had our attention as shown by the reproduced map of 1723. At that time the stated owner was "Dame Mary Grosvenor", widow of Sir Thomas (who had died in 1700), but she was then mentally deranged, and her son, Sir Richard, was virtually proprietor. It is not learnt that he occupied "Lordship House", Ebury, but it was not until three years after his death (in 1732) that Peterborough House, Millbank, became the family seat.

The farmstead stood intact in 1746, when Rocque miswrote it on his map as "Avery Farm", a mistake which has been perpetuated. But London was drawing nigh, there had been building at adjacent Neyte, and Jenny's Whim public gardens were soon to attract the town-folk. Bowles, in 1787, showed that the farm had been obliterated; the new houses of "Bridge Row" occupy the site. Horwood, in 1795, showed "Avery Farm Row" and other rows, while the Chelsea Road at this place had become "Belgrave Place", a name of true London import. To-day the site of the farm is a busy commercial quarter, curiously retaining both the name Ebury and Avery its corrupted form. A chief factor in the change has been the Brighton Railway, which has taken the course of the Grosvenor Canal, obliterating it; and a modern great iron viaduct now serves the wide thoroughfare where formerly Jenny's Whim frail wooden bridge sufficed. There is now nothing of the picturesque in the noisy sterile streets, but something has been done to relieve monotony by the planting of trees around the vicarage and schools of St. Michael's (Chester Square), which occupy the site of the old farm; while, close by, little and unfashionable Ebury Square preserves the name and an open garden-space, with a fountain and tree-shaded seats for weary Londoners.

The origin of Hyde, which appears to have been a sub-manor of Eia or Eyebury, is undiscovered. Its boundaries are those of Eia on the north and west, namely the Uxbridge Road and the Westbourne stream now merged in the Serpentine; the old course of Watling Street, preserved in Park Lane, lies on the east, and the Knightsbridge Road on the south. Thus it forms roughly a quadrilateral taken out of Eia at its north-west angle, and its identity has been preserved in Hyde Park, which, however, was made to extend far beyond the western limit of the manor, and covering part of Knightsbridge and Westbourne, originally reached almost to Kensington Palace.

In the Feet of Fines for Middlesex¹ there are several mentions of "la Hyde" as the cognomen of tenants: thus "Geoffrey de la Hyde" in 1256. It is also met with in the cartulary before cited purely as a land name. We are safe, therefore, in the belief that at an early time the district was known as "la Hyde". And in the absence of fact we may conjecture that the origin is implied in the meaning of the word. In the course of years the area would be extended, yet the original name, "The Hyde," might have been retained until the time when it comes under our cognizance, with an area of about 320 acres.

Of incidents beyond legal transactions during monastic times we have scarcely any. Widmore discovered that Abbot Litlington (1362-1386) improved the estate of the Convent at Hyde, and we have already referred to the jealous care with which Abbot Harweden (1420-1440), when granting to the City of London springs at Paddington, and permission to lay conducting pipes through Paddington and Eybury, prohibited any intrusion into "the Manor of Hyde". There was "the ancient supply of water to the Abbey of Westminster", and any interference with it would be met by the resumption of the Paddington springs.²

When Hyde was seized by the king in 1536 it was thus described in the Act:

The site, soil, circuit and precinct of the Manor of Hyde, with all the demesne lands, tenements, rents, meadows, and pastures of the said manor, with all other profits and commodities to the same pertaining, which be now in the tenure and occupation of one John Arnold.

Thus the abbot had his yeoman-tenant at Hyde as at Eybury. We should like to know more; whether John Arnold had the whole manor, which contained,

¹ *Calendar to the Feet of Fines of London and Middlesex*, by W. J. Hardy and W. Page.

² Rymer, *Foedera*, ed. 1710, xi. 29-32. Mr. A. Morley Davies, in an excellent study of "London's First Conduit System" (*Transactions of the London and Middlesex Archaeological Society*, 1907), shows by an authentic diagram the course of the conduit of 1439. Crossing the highway where is now the Marble Arch, the corner of Hyde Manor is avoided, and the conduit is laid in the land along the south side of the highway now Oxford Street. As evidence of the extension of the Manor of Eybury to the highway it is interesting to notice in the Agreement of 1439 that it was to the abbot's tenants of Eybury, as well as to those of Paddington, that compensation had to be paid.

as has been said, about 320 acres, and of what they consisted. The term "messuage" is absent (as it was in the Eybury grant), and perhaps in "tenements" we scarcely imagine a manor-house, though "demesne lands" may imply a residence of some importance. There were meadows and pastures of course, but there is no specific mention of woods, springs, or the pools heard of when the park was sold in Commonwealth times. That, however, was more than a century after bluff Henry had laid wide his hunting-ground, and built his lodges and banqueting-house. With that transformation we are not now concerned; it is the history of Hyde Park which has had many writers. We hope for further knowledge of Hyde when the complete arrangement of the Abbey muniments, now progressing, has been accomplished.

In concluding this paper, it is the hope of the writer that in presenting previously known facts with those discovered by recent search, an account of the district, fuller and more accurate than previous accounts, has been rendered. He would venture to think that something has been done in dispersing the erroneous theory of three manors, Neyte, Eybury, and Hyde, and in ending the fruitless search for a distinct manor of Neyte by showing that the name of the Abbot's seat was applied to the one manor, the ancient "Eye next Westminster" or in its developed form Eybury; so that "Neyte cum Eybury", with the sub-manor Hyde, may serve as a frame into which may be fitted the further details yet to appear as search is continued.¹

¹ The view that the word manor in the case of Neyte had no more than the significance of mansion, or as in French "manoir", which was advanced by the writer when reading this paper, is now withdrawn. In the case, however, of the late dated lease already referred to, in which certain fields are said to lie opposite and off the Manor of Neyte, and certain produce was to be delivered into the manor, it is evident that the manor-house is intended.

APPENDIX I

ABBOT JOHN [ISLIP] TO RICHARD WHASSHE, A LEASE OF THE MANOR OF EYBURY, 1518.

(Public Records, King's Remembrancer, Conventual Leases, 53.)

[Abbreviations are here extended. The MS. is torn and decayed.]

Hec indentura facta inter Johannem permissione divina Abbatem Monasterii beati Petri Westmonasterii et ejusdem loci conventum ex parte una Et Ricardum Whasshe ex parte altera Testatur quod predicti Abbas et Conventus ex eorum nomine assensu . . . totius Capituli sui concesserunt tradiderunt et ad firmam dimiserunt prefato Ricardo situm Manerii de Eybury cum omnibus terris dominicalibus pratis pascuis et pasturis una cum duabus clausuris jacentibus et earum pertinenciis un[iversis] nuper dimissum Willelmo Bate Exceptis et omnino reservatis prefatis Abbati et conventui et successoribus suis quodam clauso vocato le twenty acres jacente ex opposito Manerii de Neyte ex parte australi ejusdem Quod quidem [quatu]rdecim acras Accciam uno prato vocato Abbottes mede et una pastura vocata le Calsehaw jacentibus ex parte orientali dicti Manerii de Neyte Necnon omnibus Redditibus et serviciis sectis Curie Visus Franci plegii et eorum proficuis ad Regalitem pertinentibus **Habendum et tenendum** situm Manerii predicti cum omnibus terris dominicalibus pratis pascuis et pasturis et ceteris premissis (Exceptis preexceptis) prefato Ricardo executoribus et assignatis suis A festo Sancti Michaelis presencium usque ad finem et terminum triginta et duorum annorum extunc proximo sequentium et plenarie complendorum **Reddendo inde** annuatim prefato Abbati vel successoribus suis aut ejus certo assignato Viginti et unam libras ad duos anni terminos Videlicet Annunciacionis beate Marie Virginis et Sancti Michaelis Archangeli per equales porciones Unacum sex carectis boni feni falcandi levandi et cariandi in Manerium de le Neyte predictum sumptibus et expensis assignatis ad usum predicti Abbatis et successorum suorum [*interlined*, Et eciam cariabit alias sex carectas boni feni] precio cujuslibet carecte iiij^s iiij^d Necnon alias sex carectas boni feni deliberabit in Manerium de Neyte ad usum ejusdem Abbatis et successorum suorum quolibet anno precio cujuslibet carecte executores et assignati sui providebunt et dabunt dicto Abbati et successoribus suis unum aprum erga Festum Natalis Domini singulis annis durante termino predicto precii ad minus x^s vel x^d argenti. **Et predictus** Ricardus executores et assignati et expensis omnia et singula focalia ad usum dicti Abbatis vel successorum suorum Vide licet a Ripa Tamesie usque predictum Manerium de Neyte durante termino predicto et habebunt pro qualibet carecta i^d **Necnon** idem Ricardus executores et

semel in septimana unam carectam de diversis necessariis Hospicii predicti Abbatis vel successorum suorum tociens quociens necesse fuerit a Monasterio Westmonasterii usque Manerium de Neyte et e contra durante termino predicto **Ac insuper** sui cariabunt unam carectam de diversis necessariis Hospicii prefati Abbatis tociens quociens contingat prefatum Abbatem et successores suos remove a predicto Manerio de Neyte usque Manerium de Hendon et a dicto Manerio de Neyte vel Laleham durante termino predicto **Aceciam** predictus Ricardus executores et assignati sui omnia domos et edificia eidem Manerio spectantia que cooperta sunt cum stramine unacum longa Barcaria durante termino predicto reparabunt [ma]nutenebunt sumptibus suis propriis et expensis Et predictus Abbas et successores sui quascumque alias reparaciones et onera ad dictum Manerium necessaria preter escuracionem fossatis et reparacionem haiis sumptibus eorum expensis propriis supportabunt durante termino predicto **Proviso semper** quod si quid in domibus seu edificiis dicti Manerii per prefatum Ricardum executores et assignatos suos per servientes suos per animalia sua quecumque frangantur sive impeiorantur sui omne id quod sic defractum sive impeioratum fuerit emendabunt sumptibus suis propriis et expensis **Et idem** Ricardus executores et assignati sui habebunt competenter heybote ploughbote cartebote et fyerbote de sp de Eybury sive crescentia in eodem Manerio et non alibi expendenda Exceptis et Reservatis prefato Abbati et successoribus suis omnibus loppis de arboribus crescentibus super terras prius sibi reservatas et Manerio suo de la Neyte prefato Ricardo dictum Manerium de Eybury cum ceteris premissis alicui extranee persone ad firmam tradere sive concedere aut terminos suos aliquo modo vendere durante termino predicto sine speciali licencia predicti Abbatis et forisfacture clamei sive status sui in predicto Manerio et ceteris premissis cum suis pertinenciis **Et non licebit** alicui executori seu assignato dicti Ricardi post ejus decessum cessacionem concessionem seu dimissionem premissa cum suis pertinenciis intrare sive aliquo modo occupare Residuum Annorum termini predicti absque nova concessione predictorum Abbatis et Conventus sub forma omnium convencionum in hiis indenturis contentarum cessacionem concessionem seu dimissionem qualitercumque factam vel faciendam uni dictorum executorum seu uni assignatorum in ejus nomine proprio sub sigillo Communi dictorum Abbatis et Conventus secundum consuetudinem usitatam in f [foris]facture clamei sive status sui in predicto Manerio et ceteris premissis cum suis pertinenciis **Et predicti** Abbas et Conventus volunt et concedunt pro se et successoribus suis quod ipsi dabunt uni executorum seu uni assignatorum dicti Ricardi termini predicti sub forma omnium convencionum in hiis indenturis contentarum cum ad hoc specialiter rogati fuerint per unum dictorum executorum seu unum assignatorum infra duos menses supradictos **Et si contingat** predictam Annualement aut firmam predicti Apri et feni superius expressatam a retro fore in parte vel in toto post aliquod Festum festorum predictorum per quadraginta dies Extunc bene licebit prefato Abbati et successoribus suis in predictum situm de Eybury omnibus suis pertinenciis intrare et distringere et districciones que sic captas licite asportare abducere fugare et penes se retinere quousque de predicta firma cum arreragiis ejusdem si qui fuerint predicta firma a retro fore in parte vel in toto post aliquod Festum festorum

predictorum quo solvi debeat per quarterium Annum et nulla sufficiens districcio ibidem invenire non poterit quod tunc bene licebit hac parte deputato in predictum situm Manerii et cetera premissa cum omnibus et singulis suis pertinenciis reintrare et illud ut in pristino statu suo rehabere et possidere dictumque Ricardum executores et assignatos indentura in aliquo non obstante. **Et cum** predictus Ricardus per scriptum suum obligatorium de data presencium teneatur et obligatur prefato Abbati in quadraginta libris sterlingorum sicut [con]fectum plenius continetur **Vult tamen** idem Abbas et concedit pro se et successoribus suis Quod si predictus Ricardus et assignati sui bene et fideliter teneant et perimpleant omnes Quod tunc presens scriptum obligatorum pro nulla habeatur alioquin in omni suo robore stet et effectum **Et predictus** Abbas et successores sui predictum situm Manerii de Eybury predicti prefato Ricardo executoribus et assignatis suis modo et forma superius recitatis durante termino predicto contra omnes gentes warantizabunt per presentes **In cujus** rei testimonium sigillum dicti Ricardi hiis indenturis alternatim sunt appensa **Datum in domo** capitulari predictorum Abbatis et Conventus Westmonasterium predictum sextodecimo die et Anno Regni Regis Henrici Octavi decimo. Et predictus Ricardus quociens cariaabit percipiet de dicto Abbate et successoribus suis qualibet die dominica tam in esculente quam in poculente

APPENDIX II

LANDS, ETC., GRANTED BY ABBOT BOSTON TO THE KING, 1 JULY, 1536,
AS STATED IN THE ACT 28 HENRY VIII., CAP. 49. *Statutes of the Realm*, iii. 709.

With notes, and references to the plan, plate VIII.

All that site, soil, circuit, and precinct of the Manor of Nete within the compass of the moat, with all the housings, buildings, yards, gardens, orchards, fishings, and other commodities in and about the same site.¹

One close lying over against the said site, called *Twenty Acres*.²

A meadow called *Abbot's Meadow*, with a piece of ground called *Cawey Hall*,³ containing in all 13 acres.⁴

¹ 1 on plan. The extent "within the compass of the moat" was about 2 acres, which with 3½ acres "about the same site" made 5½ acres as the whole area of the site.

² 2 on plan. The large field lying between the manor-house and the river. It was always an adjunct of the manor-house.

³ For "Hall" read "Haw", i. e. *Cawsey* or *Causeway Hare*.

⁴ 3 on plan, in three divisions. The large triangular parcel on the south side of the Willow Walk or Causeway. This field was also an adjunct of the manor-house eastward.

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18 acres of meadow called *Market Mede*, next the Horseferry over against Lambeth.

32 acres of arable land in divers places.¹

3 acres of meadow in *Tenys Mede*.²

4 acres of land and 1 acre of meadow, now in the holding of John Lawrence.

2 acres of land in 3 parcels near the Eye,³ now in the tenure of the same John Lawrence.

2 acres of meadow lying in *Tenys Mede*, now in the tenure of the same John Lawrence.

2 acres of meadow lying in *Market Mede*, now in the tenure of John Clarke.

2 acres of land in *Charyng Crosse Felde*, now in the tenure of Thomas Swalowe.

All which premises lying and being in the towns and parishes of Westminster and St. Martins in the Felde, in the County of Middlesex.

One messuage or tenement in *the King's street* in Westminster called *the Lambe* with the yard and wharf thereto adjoining, late in the tenure of John Pomfrett.

3 acres of meadow in *Chelseth Meadow* next the brook in the County aforesaid.⁴

The advowson and parsonage of the *Church of Chelsethe*.

The Manor of *Totyngton* with all and singular the appurtenances, with all those lands, tenements, and other hereditaments now in the occupation of Hugh Mannyng.

The rectory and parsonage of the *Church of Totyngton* in the said County of Mydd., with all the tithes, oblations, offerings, pensions, portions, and other profits and advantages whatsoever they may be, being part or parcel of the said parsonage, or to the said parsonage pertaining or any way belonging.⁵

The site, soil, circuit, and precinct of the *Manor of Hyde*, with all the demesne lands, tenements, rents, meadows, and pastures of the said manor, with all other profits and commodities to the same pertaining or belonging, which be now in the tenure and occupation of one John Arnold.

The *Manor of Eybury* with all the lands, meadows, and pastures, rents and services, being part or parcel thereof, or reputed or taken as part or parcel thereof, and two closes, late parcel of the farm of *Longmore*, in the County of Midd., which Manor of Eybury with the said two closes were in the tenure and occupation of one Richarde Whasshe.⁶

Two banks, the one leading from *Totehyll* to the *Thamyse*, lying between the ditch of *Market Mede* upon the south, and the ditch of the *Burgoyne* and the *Vyne* garden upon the north; the other lying between the same *Market Mede* upon the west, and the *Thamyse* upon the east, in Westminster aforesaid, which now be in the occupation of John Shether.

Three parcels of meadow called *Market Mede* lying between the *Thamyse* and *Totehyll*, and one more⁷ abutting upon *Sheerdyche*, now in the occupation of John Bate.

One close called *Sandypytte feld* containing 18 acres whether it be more or less, in Westminster, with two meadows to the same adjoining, whereof one of the said meadows contains 5 acres and the other 7 acres, now in the occupation of one William Bate.

¹ This, of course, is quite indefinite.

² Thames Mead, by the river in Eybury.

³ The "Aye or Tybourn Brook".

⁴ Chelseth = Chelsea.

⁵ Totyngton = Todington = Tuddington = Teddington. See Newcourt's *Repertorium*.

⁶ On the plan of 1723 "The Manor of Eybury" is written against the farm, 4, which evidently was only a part of the original manor, as parcels formerly found to be in Eybury are in the list now quoted classed separately. The two closes, "late parcel of Longmore," are marked 5 and 6 on the plan; 5 had been divided.

⁷ Moor.

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One meadow called Longmore containing 8 acres, and one bank extending from *Abbots Bridge* unto the *Thamyse*, which now be in the occupation of one John Lawrence.

A pasture called the *Pryour's Croft* lying next the way leading from *Eye Bridge* to *Eyebury*.²

One piece of meadow lying in *Thamyse Mede* called *Priour's Hoope* containing $1\frac{1}{2}$ acre.

One close called *Bryk Close* lying between the great close belonging unto Eybury on the west and north, and the meadow called *Conduyte Mead* on the east, which Robert Sharpe and Elizabeth his wife, late the wife of one William Vincent, now hold.³

One croft called *Hawarde's Croft*, which now one Edward Stokwood holdeth.

One meadow parcel of *Longmore* containing by estimation 4 acres lying next the *Abbot's Bridge* at *Totehyll* aforesaid, which now is in the occupation of one Nicholas Fysshier lying and being in Westminster.⁴

The remainder of the items are beyond our limits, and may be summarized: Two cottages at *Charing Cross*. A yearly rent going out of a tenement called *the Swan* at *Charing Cross*. A rent going out of the lands of the Abbot of Abingdon in *Charing Cross Field*. Rents from a close at *Colmanshedge*, and from various lands in Westminster, respectively belonging to Sir William Essex, Edward Norres, Sir Hugh Vaughan, and William Jenyn, and one going out of the Manor of *Chelsea*, late in the tenure of William, Lord Sandes. Finally, three closes in *East Greenwich* in the County of Kent, part of the parcel of the farm of *Combe*, late in the tenure of one William Muschampe.

¹ On the plan the meadow is numbered 7, and the bank 8. The bank (not the Aye or Tyburn Brook, 10, along which it ran) seems to have marked the boundary between the parishes of St. Margaret and St. Martin-in-the-Fields. Abbot's Bridge evidently carried the causeway, called the Willow Walk, over the Aye Brook.

² Along the Chelsea Road. The Eye Bridge carried the road over the "Aye Brook or Tybourn", near the site of Buckingham Palace, probably where in Saxon times was Cowford. Eybury here evidently means Eybury Farm.

³ The Conduit Mead is known to have lain where is now Bond Street, and "the great close of Eybury" is supposed to have been the site of Grosvenor Square.

⁴ This parcel (9 on plan) is marked "Longmoore" on the plan of 1614. The moor-farm lay along the "Aye Brook or Tybourn", and at one time included two parcels in Eybury, 5 and 6 as noted. The farmstead seems to have been about where is now the Roman Catholic Cathedral in Westminster.

IV.—*On the Fellows of the Society of Antiquaries of London who have held the office of Director.* By SIR EDWARD WILLIAM BRABROOK, C.B., Vice-President and Director.

Read 27th January, 1910.

INTRODUCTION

LORD CARNARVON, in his Presidential Address of 1880,¹ gave a list of Fellows who had held the office of Director. The list comprises the names of many men who distinguished themselves in the service of the Society; and I now submit to the Society such information as I have been able to get with respect to each of them.

In the Elizabethan Society of Antiquaries, which was commemorated by Richard Gough in his preface to the first volume of *Archæologia*, published in 1770, Sir Henry Bowchier and Francis Tate (whose antiquarian learning won him high praise from Selden) had the title of "Moderators", and Lord Carnarvon suggested that that was the equivalent of the office of Director. We are informed by Spelman² that that Society discontinued its meetings for some years; that its remaining members met together in 1614 to resuscitate it; and that they then appointed "Mr. Hackwell, the Queen's Solicitor, to be their Register and the Convocator of their Assemblies for the present". The person referred to was undoubtedly William Hakewill, of Lincoln's Inn, the famous legal antiquary. In the function of Convocator his office was a sinecure, for the king interposed (under a misunderstanding, as Spelman thought), and no other assembly was ever convoked. The revival of 1614, therefore, died out after that first meeting. Lord Carnarvon thought that the office of "Register" was also similar to that of the Director.

I

Antiquaries again began to meet together in 1707, and among them was Mr. JOHN TALMAN, born in 1686, the son of an eminent architect at West Lavington, in Wiltshire. He was an excellent draughtsman and travelled much in Italy. He was at Florence on the 2nd March, 1709-10, when he wrote a letter to the Dean of Christ Church on the collection of 2,111 drawings made by the celebrated Father Resta (1635-1714) and acquired by the late Monsignor Marchetti, Bishop of Arezzo. It was bound in sixteen folio volumes, and the bishop's nephew and heir desired to sell them, and demanded 3,000 crowns, or £750 sterling. In Mr. Talman's opinion they were worth any money. He was

¹ *Proceedings*, 2nd S. viii. 337.

² Preface to *Treatise on Law Terms*.

making a catalogue to send to the Lord President (I suppose of the Queen's Council). Notwithstanding Mr. Talman's high estimate of their value, the collection was, later in the year 1710,¹ sold to Lord Somers for £600 only. It appears that Mr. Richardson, a painter, collated, purchased, and exchanged many, which were sold and dispersed in his sale, as we learn from a note appended to Mr. Talman's letter when it was published by Mr. Bathoe with other tracts, including a catalogue of the Duke of Buckingham's collection in 1758.² In a few years the whole collection had been dispersed. Possibly some of its contents might still be traced by the bishop's mark of a cross-crosslet.

When the Antiquaries organized themselves into a formal Society in 1717, they appointed Mr. Talman their Director. From their minutes it appears that on 14th Jan. 1718-19, Mr. Director brought a proof of an etched plate of a Roman lamp to be used as a signal or ticket of the Society, which he was pleased to make a present to the Society.

On 25th March he brought a sketch of a design for a plate to be printed as a headpiece or emblem of the works of the Society at the beginning of any publications, and he was ordered to have it etched. We thus owe to him our familiar emblems. It is also stated by Vertue that Talman was the first to propose that the Society should engrave plates of antiquities.

The rule of the Society then in force relating to the functions of the Director was as follows:—"VI. The Director shall superintend, regulate, and have the custody of all the drawings, engravings, and books, manage the printing and sale of them, paying the sums thereon arising to the Treasurer, and deliver to each member his dividend calculated at the common price for which such books and prints may be sold to stationers, and by ballot to receive all votes, carrying the same to the President." Under this rule, on 4th February, 1718-19, he was ordered to deliver out prints of Richard II. The office appears to have been occasionally described as that of Director of the Works of the Society. On 8th July, 1721, Talman wrote to Samuel Gale, "I rejoice to hear our Society is going on so strenuously. I wish we had a proper place to meet in and to set up our books." He presented many of his drawings of Italian antiquities to the Society, and died in 1726, at the early age of forty.

On 20th October, 1743, seventeen years after his death, his letter about the Marchetti collection was laid before the Society by James West, Esq., and ordered to be transcribed on the register. In 1758, as we have seen, it was published by Bathoe; and in 1770 it was reprinted in the first volume of *Archaeologia*. It was

¹ See Mr. Lewis Fagan's useful volume of *Collectors' Marks*, 1883, to which the learned librarian of the Victoria and Albert Museum has kindly referred me.

² See Duplessis, *Les Ventes de Tableaux, Dessins, &c.*, to which I have been kindly referred by Mr. W. Roberts, in *Notes and Queries*, 10th S. xii, 113.

thus the fate of this interesting communication of our first Director to be neglected when it might have been of some use, and to be twice published long after his death and long after the dispersal of the collection to which it referred.

II

It seems that on Mr. Talman's death, the Treasurer, Mr. SAMUEL GALE, temporarily undertook the office of Director as well. He was born in 1681, a son of the Dean of York, and brother to Roger Gale, Treasurer of the Royal Society, and Vice-President of the Society of Antiquaries. He was author of a *History of Winchester Cathedral*, a copy of which is in the Society's library, and of papers on the Horn of Ulphus at York, and on Caesar's passage over the Thames, in the first volume of *Archaeologia*. He gave up the office of Director, retaining that of Treasurer, on 8th February, 1726-7, and Mr. Degge was chosen Director and Assistant Treasurer. At that meeting the contributions of members were fixed at two shillings per month. A year later, 28th February, 1727-8, a question arose as to finding a new place of meeting for the Society, when upon a division there appeared sixteen for a private room, and two for a tavern; and accordingly on 19th October, 1728, the Society met for the first time in its new apartment in the King's Bench Walks. At that time it was limited, by a resolution passed on 18th January, 1726-7, to 100 members. It may be interesting to note here what was the financial position of the Society about this time. At the anniversary meeting of 1735-6, Mr. Gale, as Treasurer, presented his accounts for 1734, showing a balance brought forward from 1733 of £87 4s. 6½d., monthly payments in 1734 £20 17s., admissions that year £8 8s., deficiencies (*i. e.* arrears) received since 1733 £8 6s. 6d. Total £124 16s. 0¼d. Several payments in 1734 £40 1s. 7d., leaving a balance of £84 14s. 5¾d. Mr. Treasurer was ordered thanks for his great care and trouble, a compliment which has been paid ever since, and now takes the form of thanks for his good and faithful services. Mr. Gale continued to hold the office of Treasurer until 28th February, 1739-40, when he retired, and the unanimous thanks of the Society were awarded to him for the great pains he had taken during the many years he had held the office and for his just administration of it. He was also requested to order a piece of plate of what shape or form he pleased, to the value of ten guineas, to be paid for by the Society, and to bear the following inscription:

SAMUELI GALE ARMIG.

ob Quaesturam

amplius xxi annor.

bene et fideliter gestam

Societas Antiquar.

Londinensis.

L. D. D.

He had been one of the original members of the Society, and he survived to be one of the Council named in its charter in 1752. He died in 1754. In the office of Treasurer he was succeeded by Mr. Charles Compton.

III

SIMON DEGG or DEGGE, M.D., F.R.S., was the grandson of Sir Simon Degge, of Derby, Judge of South Wales, and author of *The Parson's Law*, who¹ was knighted at Whitehall, 2nd March, 1669, and had a grant of arms from Sir Wm. Dugdale: *Or on a bend azure three falcons rising argent armed and belled or*, dated 9th May, 1662. Crest, *a like falcon argent, beakt leged and belled or, issuant out of a ducal coronet*. Mr. Degge appears to have been born in 1694²; he was elected a member on 7th March, 1722-3, and on the same day brought some fine coins and a transcript of Domesday for Derbyshire, written by his grandfather.

At the next following meeting he brought a catalogue of several scarce books of English history in his possession, and on that and on many succeeding occasions exhibited coins and medals, of which he must have had a large collection. On 20th March, 1722-3, he brought an ancient pedigree of the kings of England from Adam to Henry VI, upon vellum, with historical remarks in Latin. On 2nd May, 1723, he was elected a Fellow of the Royal Society; Mr. Harrison, the Assistant Secretary of that Society, has kindly searched the records, and informs me that his proposers were Dr. Stuckely, Mr. Heathcott, and Mr. Sanders. He communicated to the *Philosophical Transactions*³ a paper on a human skeleton, of large size, found at Repton.

He appears to have been active in works of exploration, for on 8th May, 1723, he brought to the meeting of the Society of Antiquaries two pateras, two patellas of red earth, one ampulla, and other things that had been found in the parish of Hinxworth during the preceding month. After 1725 he is referred to as Dr. Degge. As already stated, he was elected Director on 8th February, 1726-7. On the 11th November of that year Thursday night was fixed as the time of meeting, as it still remains. He died in 1729, when only thirty-five years of age.

IV

No trace of the election of a successor to Dr. Degge, or of the presence of any Director at our meetings, appears on the minutes until Thursday, 15th January, 1735-6, "the day appointed by the statutes for the election of officers for the year ensuing," when CHARLES FREDERICK, Esq., was chosen Director. He was the second son of Sir Thomas Frederick, Governor of Fort St. David, and was born 21st December, 1700. He was admitted a member of the Middle

¹ See Le Neve's *Knights*.

² *Fam. Min. Gen.* 983.

³ xxxv. 363.

Temple in 1728, elected F.S.A. on 16th March, 1731, and F.R.S. in 1733. On 22nd February, 1732-3, he brought a fine Roman vessel of red earth, found near Canterbury, a sketch of which is entered on the minutes. He also exhibited medals and other objects. On 2nd May, 1734, the Society agreed that its hour of meeting every Thursday should be 7 o'clock. On 1st May, 1735, it appointed Mr. Alexander Gordon its Secretary, at a remuneration of five shillings every night he shall attend.

Mr. Frederick entered upon his duties as Director with zeal. On the 5th February, 1735-6, he undertook to complete the tables of English coins drawn up by Browne-Willis. Like Mr. Talman he was a good draughtsman, and he enriched the Society's old drawing-book with various sketches. On 11th March, 1735-6, he read his paper on the Ermine Street, which appears in the first volume of *Archaeologia*. On many other occasions he made exhibitions and communications.

On 20th May, 1736, honorary foreign members were first appointed by the Society. At the next anniversary, on 20th January, 1736-7, Mr. Frederick was re-elected Director. The following Thursday a select committee was appointed to consider of the office of Director. The members were Mr. Frederick, Mr. West, Mr. Vice-President Gale, Mr. Treasurer Gale, Mr. Leithicullier, Mr. Theobalds, Mr. Nicholas, Mr. Birch, "or any other member who will attend on that occasion." On the following Thursday it was agreed that three should be a quorum of that committee. It made its report on 24th February, which was to the effect that the duties of Director included the approval of all drawings and inscriptions before they were engraved and the taking into his custody of all copperplates, and that he should have power to appoint a Sub-director. The report was approved. Mr. Frederick was again elected Director in 1737-8, and on 7th April, 1738, Mr. West, painter, had leave to be present at the meeting, when he presented the Society with two sets of his prints of the ancient churches of London, and Mr. Director was desired to place one copy of them in Stow's *Survey of London* in their proper places. On 28th April Mr. Director Frederick acquainted the Society that, being determined to travel into foreign countries, he desired to resign his office of Director, whereby the Society might proceed to the electing another Director in his room. Agreed that Mr. Director Frederick be pleased to continue in the same office even while abroad, but that he would substitute some fit person in his place as Sub-director. The Rev. Mr. Birch was accordingly named to that office by Mr. Frederick, which meeting with the concurrence and approbation of the Society, the Rev. Mr. Birch was declared Sub-director accordingly. Mr. Frederick was again elected Director on 15th January, 1740-1, and on the following Thursday he proposed that no person should be elected a member without a formal nomination stating his qualifications, and signed by

three members. On 20th August, 1741, a proof of the print of the cross at Winchester was referred to him for his opinion. On 26th November he was appointed a member of a committee to inspect the Society's books, prints, and other things, and make a good catalogue. On 21st January, 1741-2, the Secretary read a letter from him, desiring to decline re-election to the office of Director on account of his own affairs engaging much of his time, and thanks were voted to him for the great regard he had shown for the Society for many years. He was M.P. for Shoreham from 1741 to 1754, and for Queenborough from 1754 to 1784. He was Surveyor-General of Ordnance, and was created a Knight of the Bath in 1761. He was not a Baronet, as incorrectly stated in *Archaeologia*,¹ though he was a kinsman of the then Baronet and his own descendants ultimately succeeded to the Baronetcy. On 25th January, 1770, he communicated a paper on Jarrow Church. He died 18th December, 1785.

V

The Rev. THOMAS BIRCH, D.D., was born of Quaker parents on 23rd November, 1705 (plate IX). He became F.R.S. and F.S.A. in 1735. He performed his duties as Sub-director with great efficiency. On 19th May, 1737, he presented the Society with a copy of two volumes, 8vo, edited by himself, being the miscellaneous works of Mr. John Greves (Greaves), Professor of Astronomy at Oxford. On 23rd June it was agreed that the Sub-director do select, from the book wherein are drawings of some English coins belonging to the Society, such as may seem most proper to be engraved. So completely did he fill the functions of Director that on two occasions he took the chair at meetings. On 8th December it was agreed that there be an annual feast held by this Society, on every St. George's Day, except that day fall on a Sunday or Good Friday, on which anniversary the members may, if they please, dine with one another, at their own charge. A select committee was appointed, consisting of Mr. Vice-President Folkes, Mr. Vice-President Gale, Mr. Treasurer Gale, Mr. West, Mr. Sub-director Birch, Mr. Nicholas, and Mr. Holmes, to consider of rules proper for regulating the said annual meeting. On 12th January, 1737-8, it was ordered that the feast be kept at the Mitre Tavern in Fleet Street, and that the ordinary be four shillings per head, with one shilling for a pint of port wine. It was now reported that the Society's number of members was completely one hundred. Discussions arose, and were continued during many meetings, in which Mr. William Bogdani took an active part, as to the questions, 1. of printing a list of the members, 2. of repealing the limit of numbers. On 19th January the Rev. Mr. Birch was chosen Director during the absence of Mr. Charles Frederick,

¹ Vol. i. 61.



THOMAS BIRCH, F.R.S.



GREGORY SHARPE, F.R.S.

PORTRAITS OF FORMER DIRECTORS OF THE SOCIETY OF ANTIQUARIES

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and is thereafter referred to as Mr. Director Birch. On 16th March he presented a print, by Hollar, of the frontispiece of a book given to the Royal Society by John Evelyn. On 4th May he addressed to the Society some observations on a medal of Cardinal Richelieu; on 18th May he was desired to prepare an inscription for the print of the Bishop's Chapel at Hereford; on 8th June he brought two volumes of the Catalogue of the Bodleian Library, which he had bought for the Society; on 15th June he was desired to prepare a list, in Latin, of the works of the Society. This he did, and presented it on 14th December. On 3rd August he was desired to add the dimensions of the tesserae to the plate of pavements found near Bath, and on 24th August he directed Mr. Vertue accordingly. On 2nd November he and Mr. Treasurer Gale promised to draw up an account of Arabella, Countess of Lennox, which they did on 11th January, 1738-9.

VI

At the annual meeting on the following Thursday, which was the close of this busy and useful year of Mr. Birch's Directorate, something like a crisis occurred. Mr. Theobald proposed, and Mr. Johnson seconded, that Mr. WILLIAM BOGDANI be Director, and on a ballot being taken, the votes were 12 in the affirmative, 11 in the negative.

Mr. Bogdani, born in 1699, had been elected F.S.A. 23rd November, 1726, and F.R.S. in 1729. In April, 1729, he had presented the Society with a large collection of casts of seals. In 1732 he had exhibited and commented upon two sketches of rock inscriptions from the river Taunton in New England, which gave rise to a curious controversy. On 1st February, 1738-9, the Rev. Mr. Birch, late Director, returned to the Society the book of their works from which he had translated his Latin catalogue. This catalogue did not appear to have quite satisfied Mr. Director Bogdani, who on more than one occasion brought it before the Society for further consideration. He is noted as having made several communications to the Society during his Directorate. At the annual meeting for the election of officers on 17 January, 1739-40, he wrote to say that his affairs obliged him to be out of town for a fortnight, and sent his keys, to be delivered to any person who might be appointed Director in his place, and the Society chose by ballot the Rev. Mr. Thomas Birch, former Director, to be Director for the ensuing year.

Mr. Bogdani married a near relative of Maurice Johnson, and was for many years the usual medium through which the proceedings of the Gentlemen's Society of Spalding were reported to the Society of Antiquaries. He stood for Director on the retirement of Mr. Frederick, but was not elected. He was Clerk

of the Ordnance Office in the Tower, and held a lease from the Crown of the manor of Hitchin, where he died in 1771.

Mr. Birch returned to his functions with his former zeal. On 24th April, 1740, he was authorized to purchase a drawing of St. Mary's Abbey and the manor, and on 8th May was desired to draw up a short account, in Latin, of the hypocaust in Lincoln. This he did on 19th June. He retired from the office in favour of Mr. Frederick in 1740-1, but returned to it in 1741-2, and was annually re-elected until 1746. It is curious that no communication of this able Director and voluminous author should have been selected for publication in *Archaeologia*. On 15th January, 1746-7, notice was given that the Rev. Mr. Birch, late Director, was of late much afflicted in his eyes, and that he desired that the Society would think of some proper person to fill that office. By 1752 he had so far recovered as to accept the office of Secretary of the Royal Society, which he held until 1765. He lived to write the biography of his successor in the office of Director, Dr. John Ward. He died 9th January, 1766, and is buried in the chancel of St. Margaret Pattens. By permission of the Royal Society, his portrait is here reproduced from their collection.

VII

JOHN WARD, LL.D., Professor of Rhetoric in Gresham College, was son of a dissenting minister, and born about 1679. He became a Fellow of the Royal Society in 1723 and afterwards Vice-President. He was elected F.S.A. in 1736-7. On 4th April, 1745, Mr. Vice-President Folkes was pleased to oblige the Society with reading to them a paper which he had brought with him from the Royal Society, written by Professor Ward, on some remains of antiquity in Barkway, Hertfordshire, and to intimate that Mr. Ward's paper would be printed in the *Philosophical Transactions*. On the 25th April Mr. Ward was pleased to present the Society with his own work on the lives of the Professors of Gresham College. The Society returned Mr. Ward their thanks for this book, so acceptable to them. After his election as Director, he read an account of the Court of Wards and Liveries, and made many other communications to the Society. At the anniversary on 21 January, 1747-8, he was re-elected with thanks for his former favours. On 19th January, 1748-9, he was re-chosen, being absent, and thanks were ordered to be returned to him on the first opportunity. On 23rd February the increase in the number of members to 120 was carried by the necessary majority of two-thirds (19 for, 6 against). On 13th April the Director presented his observations on the antiquity and use of beacons. On 18th January, 1749-50, the Treasurer and Director had thanks for their good kind (*sic*) behaviour in their offices and were re-chosen unanimously. On 10th May a committee

was appointed to consider the plan for procuring of a charter, and on the 14th November, 1750-1, the letters patent for incorporating the Society were read. On 23rd April, the anniversary day fixed by the charter, Dr. John Ward was elected Director, and then the Society adjourned in order to dine together.

The early publications of the Society consisted largely of prints engraved by their able artist, George Vertue, and described by the successive Directors, and it now became a practice to reward a Director for his trouble in preparing the inscription and supervising the engraving by giving him six copies of each print. On 8th March, 1753, the Society took a house in Chancery Lane, where it held a meeting for the first time on 12th April. At the anniversary on the 23rd Dr. John Ward was re-elected Director, and on 26th April Martin Folkes, the President, appointed him one of the Vice-Presidents. He continued to hold both offices by annual reappointment, having been appointed Vice-President on 25th July, 1754, by Lord Willoughby de Parham, who had become President on the death of Mr. Folkes. A curious incident occurred shortly after. The Society had been advised, when it obtained its charter, that its existing members should all be re-elected and enrolled as members of the corporate body. This was done, but by some oversight the name of Dr. Stukeley had been omitted, and it was now discovered that Dr. Stukeley, the Society's first Secretary, had never been properly constituted a member of the corporation. The Society at once proceeded to remedy the omission, and on 14th November, 1754, our Director-Vice-President being Chairman, Dr. Stukeley was readmitted. He showed his gratitude to the Society at its next meeting by presenting fifty-two prints, and informing the Society that Bertram's *Richard of Cirencester* was in the press. The doctor, on 6th November, 1755, brought to the Society a map that Bertram had prepared to illustrate that fictitious work, and on the 18th March and 8th April, 1756, read an account of Richard, his family, and his works, and thus launched upon us Bertram's amazing forgery. On other occasions, Dr. Stukeley renewed his active interest in the Society. On 12th December, 1754, he presented drawings of the Leicester pavement and of other objects, and was thanked for that valuable present. On 20th February, 1755, he occupied the chair as the senior member present, and delivered in his drawings of the Old Sanctuary. He died 4th March, 1765, aged 78.

To return to Dr. Ward. On 8th June, 1758, he presented, through Dr. Parsons, his *Four Essays upon the English Language*. In October of the same year he died, and is buried in Bunhill Fields.

VIII

The Ven. JOHN TAYLOR, LL.D., Archdeacon of Buckingham and Canon of St. Paul's, the son of a barber, was born 22nd June, 1704. He was elected F.R.S.

and F.S.A. in 1759, and on St. George's Day in the same year was elected Director, in succession to Dr. Ward. He was at the same time appointed one of Lord Willoughby's Vice-Presidents, and held both offices together until his death on 4th April, 1766, having been reappointed Vice-President by the Bishop of Carlisle on his lordship's accession to the Presidency after the death of Lord Willoughby in January, 1765. During Dr. Taylor's time the work of the Society does not appear to have been strenuous, though there are some interesting incidents. On 5th February, 1761, William Blackstone, the author of the famous *Commentaries on the Law of England*, was elected a member, and on 9th April was admitted. On 11th February, 1762, there was a meeting in very indifferent weather, when the Hon. Horace Walpole, Dr. Stukeley, Mr. Pegge, and nine other Fellows not so well known to fame, were present, but the President and Vice-Presidents were absent, and no gentleman choosing to take the chair the evening was spent in conversation. On 12th March, in the like circumstances as to weather, Dr. Taylor took the chair, but, as only six were present, they declined entering upon business, and spent the evening in conversation. Not unfrequently the record of an evening meeting is a blank. Horace Walpole's name having been mentioned as attending a meeting, it is perhaps as well to say that he got tired of the Society after a time. In 1770 he writes that he had dropped his attendance at the Society's house in Chancery Lane four or five years before, being sick of their ignorance and stupidity. He entered into a controversy with Dean Milles, the then President, as to the Wardrobe Accounts of Richard III.¹ He got increasingly bitter as time went on, referred to *Archæologia* as "Old Woman's Logic",² and in 1777 said that he had shut himself entirely out of the Antiquarian Society and Parliament, "the archiepiscopal seats of folly and knavery."³ After all this it is rather odd to find him in 1778 hinting a suspicion that there was a cabal in the Society against him, and that Lord Hardwicke was the mover of it.⁴

Dr. Taylor's description of the inscriptions at Netherby, like many other contributions to the Society made at that time, is printed in the *Philosophical Transactions*. He was a great classical scholar. He held the offices of University Librarian and Registry, was Fellow and Tutor of St. John's, Cambridge, and Chancellor of the diocese of Lincoln. He is buried in St. Paul's Cathedral.

IX

The Rev. Prebendary GREGORY SHARPE, LL.D., Master of the Temple, was born in 1713, and elected F.S.A. and F.R.S. in 1754 (plate IX). He became Director at the anniversary of 1766 in succession to Dr. Taylor, and was immediately ap-

¹ *Letters*, vii. 427.

² viii. 41.

³ x. 26.

⁴ x. 312.

pointed a Vice-President by the Bishop of Carlisle. On the death of that prelate on 7th January, 1769, Dr. Milles, Dean of Exeter, succeeded him as President, and selected Dr. Sharpe as one of his Vice-Presidents. Dr. Sharpe continued to hold the offices of Director and Vice-President until his death on 8th January, 1771. He frequently occupied the chair at meetings. His last communication to the Society was on the 15th November, 1770. In his time some incidents occurred worth noting. On 20th April, 1769, the President directed the Secretary to cease to enter on the minutes the name of every Fellow present. On 14th June, 1770, the Society provided itself with a common seal, and ordered a copperplate engraving from it to be used in *Archaeologia*. On 5th July the President presented the king at a levée with the first volume of *Archaeologia*. Dr. Sharpe was a classical and oriental scholar, and frequently addressed the Society on those subjects, but no contribution of his appears in *Archaeologia*. By permission of the Royal Society a fine portrait of him is here reproduced from their collection.

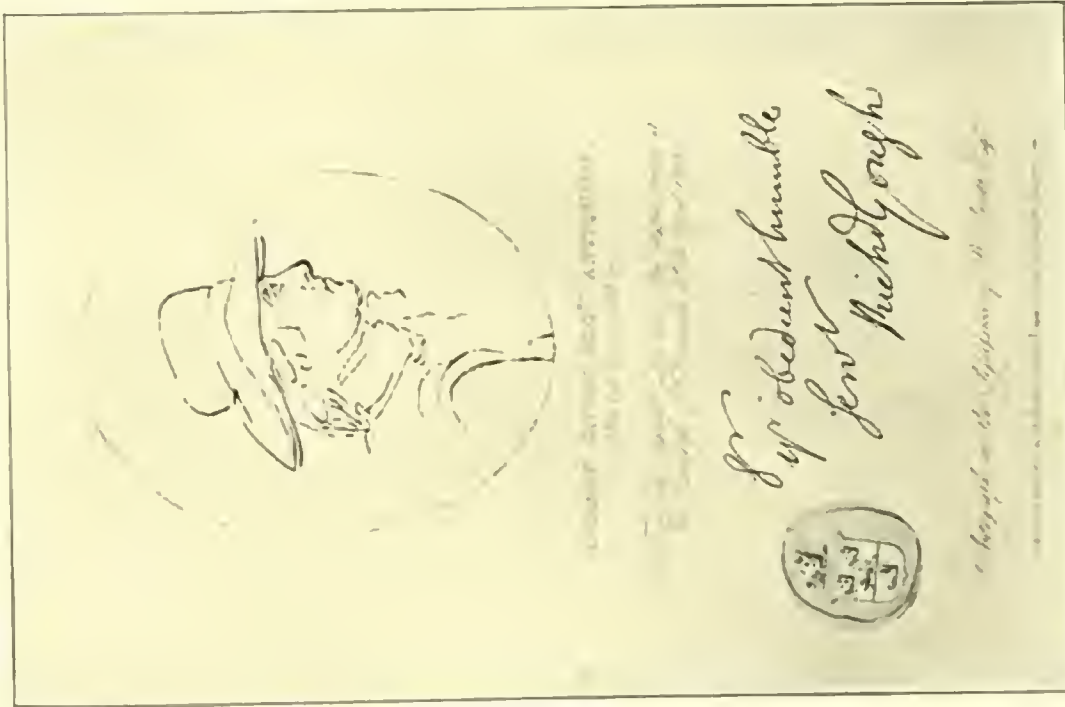
X

RICHARD GOUGH, born of wealthy parents in Winchester Street, Austin Friars, on 21 October, 1735, was elected F.S.A. in 1767 (plate X). On 9th February, 1769, he presented the Society with his *Anecdotes of British Topography*. As already stated, in 1770 he wrote the preface to *Archaeologia*. On 15th February, 1770, he read a paper on the Tomb of Roger, Bishop of Salisbury, 1139, which appears in the third volume of *Archaeologia*. On 31st January, 1771, he sent a paper on a sarcophagus at Llanrwst. On 23rd April of the same year he was elected Director. The room at the Mitre Tavern was too small for the attendance of the Fellows on that occasion, so they dined in Clifford's Inn hall. In following years they returned to the Mitre, where an "elegant entertainment, suitable to the occasion, was provided". Mr. Gough was an energetic Director. Besides the sixteen papers which appear in *Archaeologia*, vols. ii to xi, he made numerous presentations and communications to the Society which are recorded in its minutes. In 1777 Mr. Gough published a *Catalogue of the Coins of Canute*, and in 1786 his great work on *Sepulchral Monuments*; and he was author of *British Topography* (2 vols. 4to) and other antiquarian works. In 1789 he presented his new edition of Camden's *Britannia* in three large volumes, folio. He became F.R.S. in 1775, and quitted that Society in 1795. During his tenure of the office of Director, which lasted until 1797, twenty-six years, the longest upon record, some interesting circumstances arose. In 1777 the annual subscription was raised from £1 11s. 6d. to £2 2s., and the composition from £15 15s. to £22 1s. By 1780 the Society had £2,400 invested in Consols. On 8th June, 1780, the Gordon riots were raging, and the Society adjourned without entering

upon business. In the same year, the king allotted to the Society a noble apartment in Somerset House, where it for the first time held a meeting on 11th January, 1781, and erected a bust of his majesty in token of gratitude. On 13th November, 1784, Dean Milles, the President, died, and on the 26th Mr. Edward King was elected in his place. He at once proceeded, with the assent of the Council, to effect certain reforms, and on the 23rd April very gracefully resigned his seat in favour of Lord de Ferrers, and was thanked and made a Vice-President. At that time the Society had 400 members. On 18th May his lordship was created Earl of Leicester. On the following anniversary in 1758 Mr. King opposed the re-election of Lord Leicester, and drew up a house list of his own. Lord Leicester was elected by sixty-two votes against thirty-seven for Mr. King. Then the Fellows had an elegant dinner at the Devil Tavern. In 1787 and in subsequent years they dined at the Crown and Anchor. In 1789 Joseph Ritson was proposed as a Fellow, but was not elected. The same fate befell Samuel Ireland, but his friends immediately proposed him again, only to be again rejected. On 1st March, 1798, the Society paid £500 to the Bank of England as a voluntary contribution for the defence of the country. At the anniversary of 1798 it was reported that Mr. Gough had withdrawn from the Society. On 30th March, 1799, he presented it with the introduction and index to the second volume of his *Sepulchral Monuments*, and on 17th April, 1806, it is recorded that our late worthy Director, Mr. Gough, presented eight drawings of St. Albans Abbey, made by Mr. Carter. He died 20th February, 1809, and is buried in the churchyard of Wormley, Hertfordshire. By permission of the Royal Society an interesting portrait of him is here reproduced from their collection.

XI

SAMUEL LYSONS, of the Inner Temple, Barrister-at-Law, the second son of the Rev. Samuel Lysons, was born 17th May, 1763, elected F.S.A. on 9th November, 1786, and admitted 23rd November. He was elected F.R.S. in 1797 (plate X). He made frequent communications to the Society of Antiquaries, and succeeded Mr. Gough in the office of Director on 23rd April, 1798. On the 3rd May the Vice-President in the chair delivered the key of office to Mr. Lysons, and he took his seat as Director. He was annually re-elected until 1809. He contributed twenty-eight papers to *Archaeologia*, from vols. ix to xix. His history of the Berkeley family occupied fifteen evenings in the reading. He became Treasurer of the Royal Society in 1810, and was also a Vice-President of that Society. He was Antiquary to the Royal Academy from 1818. Among his important contributions to antiquarian literature are the *Reliquiae Britannicae*



RICHARD GOUGH, F.R.S.



SAMUEL LYSONS, F.R.S.

PORTRAITS OF FORMER DIRECTORS OF THE SOCIETY OF ANTIQUARIES

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Romanae, in two vols., folio, 1801; another edition, three vols., folio, 1813-17, containing 156 plates and said to have cost him £6,000 to produce; his description of the Roman Villas at Bignor and at Woodchester (the latter described in our minutes as a most splendid work); his *Antiquities of Gloucester*, 1791-8, and again 1803-4.

On 3rd April, 1809, he wrote to the President that the Society having for several years done him the honour to elect him into the office of their Director, presuming from thence that he should be honoured in the same manner at the ensuing anniversary, he requested that he might not be reappointed on the ground of his duties at the Record Office in the Tower and his other avocations not giving him the requisite leisure; and the unanimous and grateful thanks of the Fellows were voted to him in the most handsome terms for his great care, abilities, and zeal. He was appointed a Vice-President by Lord Aberdeen on 19th November, 1812. In that capacity, as in every other in which he rendered service to the Society, he was assiduous, having been Vice-President in the chair not less than ten times between November, 1818, and June, 1819, the last occasion being the 17th June. He died on the 29th. At the next meeting, on 4th November, Lord Aberdeen, the President, in an elegant and impressive speech, deplored with great sensibility the loss the Society had sustained. Mr. Lysons is buried at Hampstead.

XII

WILLIAM RICHARD HAMILTON, son of the Ven. Archdeacon Hamilton, who was Vicar of St. Martin's-in-the-Fields, and from 1788 to 1813 one of the Society's Vice-Presidents, was born in London 9th January, 1777 (plate XI). In early life he went to the East as private secretary to the Earl of Elgin, British Ambassador at Constantinople. He was employed in that capacity to obtain from the French the Rosetta Stone and other antiquities, in pursuance of the Convention of Alexandria, and performed his duty with great intrepidity and with success. In 1802 he procured a vessel for the purpose of transporting the Elgin Marbles to England, and embarked in it in company with Captain Martin Leake. The ship was wrecked off the island of Cerigo, and they had a narrow escape for their lives. On 14th June, 1804, he was elected F.S.A., the Rosetta Stone having been deposited by the Government in our library, where a facsimile of it was taken and afterwards published in *Vetusta Monumenta*. On 6th December of the same year he read a paper on the Fortresses of Ancient Greece.¹ On the 11th and 18th Feb., 1808, he communicated an account of a papyrus roll which he had presented to the Society.² In 1809 he was appointed one of the Auditors, and on St. George's Day was elected Director in succession to Mr. Lysons. On 16th October of the same year he was appointed Under Secretary

¹ *Archaeologia*, xv. 315.

² *Archaeologia*, xvi. 171.

of State for Foreign Affairs, an office which he held till 22nd January, 1822, and this probably accounts for his not seeking re-election as Director. From 1822 to 1825 he was Minister at the Court of Naples. On 30th November, 1826, he was again elected Director of the Society on the death of Mr. Combe, but he held office only until the following St. George's Day, when Lord Aberdeen appointed him a Vice-President, an office which he continued to hold until 1847, having been reappointed by Lord Mahon. He took part in the formation of the Royal Geographical Society, and was elected a member of the Royal Society in 1813. He was also a member of the Royal Society of Literature, to which he contributed several papers between 1834 and 1839. In 1838 he was appointed one of the Trustees of the British Museum, and he held that office until 1858. He published *Aegyptiaca* and other works. He was Secretary of the Society of Dilettanti, and an Honorary Fellow of the Academy of Sciences at Berlin. He died 11th July, 1859, at Bolton Row.

XIII

MATTHEW RAPER was elected F.S.A. on 17th November, 1785, and admitted the following Thursday. He had been elected F.R.S. in 1783. On 4th June, 1804, he presented this Society with his *Enchiridium* to Scapula's *Lexicon*, a duodecimo which cannot now be traced in the library. On 23rd April, 1810, he was elected Director. On 4th July, 1811, he wrote a letter of resignation in the like terms with that of Lysons, and was thanked in a similar resolution, a rather curious indication of the tendency of the Society to follow precedent. What is still more curious is that the resignation announced and accepted in such pathetic language never took effect. In the following August the President, who had become Marquis Townshend, died, and Sir H. C. Englefield was elected in his place. There were then 830 members. Next St. George's Day, 1812, the Society met at 12. As the meeting was far from being concluded at 5, the boxes and the door of the meeting-room were sealed, and the members adjourned to the Freemasons' Tavern to dinner. The scrutators and others returned to Somerset House at 7, and unsealed the door and box no. 1. At 11 o'clock they gave up through fatigue and left boxes nos. 2 and 3 sealed until next day. 435 Fellows voted, and they unanimously re-elected the Treasurer and Secretaries. For the office of President the votes were: George, Earl of Aberdeen, 251; Sir H. C. Englefield, 184. For that of Director: Matthew Raper, 250; George Isted, F.R.S., 185. The death of Mr. Isted was reported at the anniversary of 1822. Mr. Raper as Director wrote the prefatory notes to the account of the Rosetta Stone in the sixteenth volume of *Archæologia*. He held office until the anniversary of 1813, when Lord Aberdeen made him Vice-President. In that capacity he nearly rivalled Mr. Lysons in the regularity of his attendance. On 5th May, 1814,



WILLIAM RICHARD HAMILTON, F.R.S.



JOHN GAGE ROKEWODE, F.R.S.

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Matthew Raper, as "the Author", presented his *Index ad Specimen Geographicum, Auctor d'Anville, Regiæ Humaniorum Litterarum Academiae et Scientiarum Petropolitanae Socius, MDCCLXII*, which bears as an advertisement the words: "The following Index was arranged by the Editor to facilitate the reference to d'Anville's Map of Ancient Greece, and being found very useful for that purpose, he determined to have a few printed, in order to present copies to such of his friends as he thought might be accommodated by it." His death was reported to the Society on the 14th December, 1825.

XIV

TAYLOR COMBE, son of Charles Combe, M.D., F.R.S., F.S.A., an eminent numismatist, was born in 1774, and elected F.S.A. on 14th December, 1799. He had previously communicated to the Society an explanation of a Greek funeral monument. On the 23rd January, 1800, he communicated observations on a bronze figure of a goat from Asia Minor. In December, 1802, he read a paper on the Rosetta Stone. He was elected F.R.S. in 1806, appointed Keeper of the Antiquities (including coins and medals) at the British Museum in 1807, was Secretary of the Royal Society and Editor of the *Philosophical Transactions* from 1812 to 1824, and Director of the Society of Antiquaries from 1813 until his death on 7th July, 1826. He made many communications to the Society, mostly in relation to coins, and was author of several numismatic works, as well as of descriptions of the ancient marbles and terra-cottas in the British Museum. He died 7th July, 1826, at his residence there, and was buried at Bloomsbury. We possess a portrait medal of him, presented by Dr. Gray in 1869.

XV

JAMES HEYWOOD MARKLAND, D.C.L., Solicitor, son of a manufacturer and landed proprietor, was born 7th December, 1788. He was elected F.S.A. on 26th January, 1809, but not admitted until 19th November, 1810. On 23rd January, 1812, he exhibited drawings of Henry VII's tomb. He was elected F.R.S. in 1816 and Director of the Society of Antiquaries on St. George's Day, 1827. On 27th November, 1828, Mr. Henry Hallam announced from the chair as Vice-President that the king had granted two gold medals, value 50 guineas each, to be annually awarded by the Council. It does not appear that these medals were ever awarded.¹ Mr. Ouvry, President of the Society, writing to me on 24th March, 1877, informed

¹ See *Observations on the State of Historical Literature*, by N. H. Nicolas, 1830, p. 39. Mr. (afterwards Sir) N. H. Nicolas had been elected on the Council in succession to Mr. Raper, deceased, on 25th June, 1827. He appears not to have been re-elected the following year, and to have withdrawn from the Society in 1829. His book is a bitter attack upon its management. The Society has always been open to this sort of cheap criticism, and does not appear to have suffered much from it.

me that after a few years the royal grant was found to lead to so much jealousy and heart-burning that the Society requested the discontinuance of the gift! Mr. Markland resigned the office of Director in 1829, and was elected on the Council. Thanks were voted to him for the great zeal, ability, and attention to the welfare of the Society uniformly displayed by him as Director. His papers in *Archaeologia* are in vols. xviii, xx, xxiii, and xxvii. He edited the *Chester Mysteries* for the Roxburgh Club in 1818, and published *Remarks on Sepulchral Memorials*, 1840-1843, besides papers in the *Archaeological Journal*, the *Journal of the British Archaeological Association*, and *Notes and Queries*. Lord Stanhope's address for 1865 contains an obituary notice of Mr. Markland.

XVI

JOHN GAGE, Barrister, of Lincoln's Inn, son of Sir Thomas Gage, was born 13th September, 1786, elected F.S.A. 5th November, 1818, and admitted on 3rd December (plate XI). He became F.R.S. in 1824. He was elected Director at the anniversary of 1829, and retained that office until his death. On 19th November, 1829, he communicated observations on the round towers of Norfolk and Suffolk churches, and afterwards made numerous communications, many of which are contained in *Archaeologia*, vols. xxi to xxx. Among them should be specially mentioned his accounts of his excavations of the Bartlow Hills, and his description of the Benedictional of St. Aethelwold. In 1838 he inherited the estate of Coldham Hall, Suffolk, and took the additional name of Rokewode, by royal licence. He died on 14th October, 1842, and was buried at Stanningfield. At the meeting of the Society on 24th November, Mr. Henry Hallam, the Vice-President in the chair, said that no eulogy of Mr. Rokewode could be necessary before those who were present, most of whom were all aware of his zeal and diligence in their service, his extensive knowledge of antiquity and taste for art. It was within the circle of his intimate friends that he was still more valued for the sincerity of his manner and the excellence of his heart. The premature loss of such a man was deeply to be regretted. By permission of the Royal Society, a fine portrait of him is here reproduced from their collection.¹

XVII

ALBERT WAY, son of the Rev. Lewis Way was born 23rd June, 1805 (plate XII). He was elected F.S.A. 7th March, 1839, and communicated through Mr. J. Gage

¹ Most of the preceding statements are derived from the unpublished MS. minutes of the Society, and I hope that they will be found of sufficient interest to encourage the Council in their resolution to print those minutes *in extenso*. Other statements are given on the authority of the *Dictionary of National Biography*, or derived from various sources. From this point the anniversary addresses of successive Presidents of the Society, as recorded in the two series of its printed *Proceedings*, supply most of the facts.



ALBERT WAY



ADMIRAL WILLIAM HENRY SMYTH, F.R.S.

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Rokewode, the Director, a paper on the effigy of Richard Cœur de Lion in Rouen Cathedral, which appears in the twenty-ninth volume of *Archaeologia*. He succeeded Mr. Rokewode as Director on 15th December, 1842, and held the office until 19th November, 1846, when he resigned, having ceased to reside in London. He had in the meantime read several papers, which appear in *Archaeologia*, and prepared a catalogue of the antiquities, coins, pictures, and other miscellaneous objects in the Society's possession. He was one of the founders and the Hon. Secretary of the Archaeological Institute. He died 22nd March, 1874, and his widow, the Hon. Mrs. Way, presented many books from his library and others of his collections to the Society. The portrait reproduced in plate XII is from a wax medallion by Lucas.

XVIII

WILLIAM HENRY SMYTH, Admiral, son of an owner of large estates in New Jersey, which he lost as a Royalist, and claiming to be descended from the famous Captain John Smith of Virginia, was born 21st January, 1788, elected F.S.A. in 1821, F.R.S. in 1826, and Director S.A. on 7th January, 1847 (plate XII). Among the duties he had to perform as Director was the sorting and cataloguing of the Kerrick collection of 3,777 coins, which in the year 1907 were returned to a descendant of the donor. On the 7th March, 1851, Lord Mahon appointed Captain Smyth to the office of Vice-President in succession to Henry Hallam, retired. He continued to hold the offices of Director and Vice-President together until St. George's Day, 1852, when he retired from the former. He presided on many occasions at the meetings. At the anniversary dinner of 1851, Lord Mahon, P., in the chair, many distinguished persons connected with literature and science, who had been specially invited, graced it with their presence in honour of the centenary of the Society's charter.

On 16th December, 1852, Admiral Smyth was appointed one of a committee to prepare a revision of the statute of the Society under which the Senior Vice-President of the four was to retire each year, and in pursuance of that new statute his Vice-Presidency expired on St. George's Day, 1857. He was also Vice-President of the Royal Society. Lord Stanhope took occasion to pay a tribute of respect to his accurate knowledge, his constant courtesy, and his upright and able mind. He was the author of many important works in astronomical and geographical literature, and had been President of the Royal Astronomical Society and of the Royal Geographical Society. His contributions to *Archaeologia* extended from the twenty-second to the thirty-ninth volumes. He died 9th September, 1865. By permission of the Royal Society, a portrait of him is here reproduced from their collection.

XIX

Percy Clinton Sydney Smythe, sixth VISCOUNT STRANGFORD, D.C.L., was born on 31st August, 1780. He became F.R.S. and F.S.A. in 1825 and Director of the S.A. in 1852, but held office only until December, 1853. In the interval the heated controversies took place which ended in the reduction of the annual subscription from four guineas to two guineas, a measure which Lord Stanhope afterwards justified by its success. From 1846 to 1852 the number of Fellows had gradually fallen from 641 to 524; after that date they steadily rose to 634 in 1857. On 29th April, 1854, Lord Strangford was appointed a Vice-President. He had filled the post of ambassador from his sovereign to several foreign countries, and been rewarded with an English peerage and the decorations of G.C.B. and G.C.H. Lord Stanhope said of him that while he gave lustre and dignity to the offices which he held among us, these posts had never been filled by any one more conciliatory in his manners, more easy at all times of access, or more sincerely desirous to fulfil the duties committed to his charge. He died 29th May, 1855. The Society possesses a miniature portrait of him, presented by Mr. William Smith, F.S.A., in 1876.¹

XX

Sir HENRY ELLIS, Knight of the Hanoverian Guelphic Order, was born on the 29th November, 1777, became in 1797 an assistant librarian at the Bodleian, and in 1800 transferred his services to the British Museum, where he speedily rose to high office. He was elected F.S.A. in 1807, F.R.S. in 1811, and in 1814 became Secretary of the Society of Antiquaries. He held that office for forty years, and is said only to have missed two meetings in all that time. On 1st December, 1853 (the day of the passing of the new statutes), he became Director, holding that office together with the amount of his present emoluments, and the Society returned their warm and cordial thanks to him for his forty years of most able and zealous co-operation in the business and superintendence of their publications, in the confidence that he would carry the same zeal and ability to the office of Director, and in the hope that health and strength might be vouchsafed to him in that office for many years. One event of his directorate was the discontinuance in 1854 of the St. George's Day dinner, which had in each of the two years previous to the centenary celebration been attended by twenty-one members only, and in the years subsequent to that occasion by twenty-six and twenty-seven respectively. On 17th December, 1857, when he was in his eighty-first year, he found the care of his health increasingly necessary, that coming

¹ See *Proceedings*, vi. 519.

down to the evening meetings through the winter would run the risk of impairing it, and that the toil in the preparation and management of the Society's publications could not longer be undertaken by him, and accordingly resigned the office of Director. The record of the Society's sense of the value of his services was not only sent to him, under the signature of the Chairman, but a fair transcript on vellum was also made and the corporate seal affixed to it by the Council. He continued to make occasional communications to the Society. His contributions to *Archaeologia* range from the sixteenth to the thirty-eighth volumes, both inclusive, and were computed by Lord Stanhope to occupy 589 pages in all. He also published many important works, the earliest of which was the *History of St. Leonard, Shoreditch*, in 1799. Among them may be mentioned his *Original Letters illustrative of English History*, in thirteen volumes, and his catalogue of the Society's manuscripts. He died 15th January, 1869, at the age of ninety-two.

XXI

SIR AUGUSTUS WOLLASTON FRANKS, K.C.B., was born in 1826, and became an officer of the British Museum in 1851. He was elected F.S.A. in 1853, became Director in 1858, and retired from that office after nine years' service, returning to it from 1873 to 1879. In 1873 he became F.R.S. In 1891 he became President of this Society, and retained that office until his death in 1897. He was a Litt.D. of Cambridge and a D.C.L. of Oxford. As the career as Director of this illustrious antiquary merged in the higher dignity of President, and as no Fellow can forget the services he rendered to the Society, of which, as Lord Dillon said, he was ever the generous, faithful, and thoughtful friend, I should not do more than refer to the eulogium pronounced by his lordship in the Presidential Address of 1898¹ if it were not for the fact that from 1872 to 1880 Mr. Franks and I were associated together in the work of the Anthropological Institute. I take the liberty of reprinting some observations I addressed to the Fellows of that Institute on 25th May, 1891.²

Since the last meeting the Institute has lost an early and most valuable supporter, and I myself a personal friend of many years' standing, by the death of Sir Augustus Wollaston Franks, who was an accomplished student of every branch of antiquity. Nothing was more remarkable in his long career as Director and ultimately as President of the Society of Antiquaries of London than the depth and breadth of his archaeological learning. There seemed to be no subject that could be brought before that Society of which he was not master. In connexion with the branches of archaeology which touch most closely upon anthropology, he will be remembered for his researches into late Celtic antiquity and for his happy definition of that period of art. As keeper of the Ethnographical Collections of the British Museum, and acting trustee of the Christy

Proceedings, 2nd S. xvii. 149.

² *Journal of the Anthropological Institute*, xvii. 192, 193.

collection, he commenced the practice, which has been continued under Mr. Read, now his successor,¹ of bringing before the Institute any remarkable ethnographical objects that were about to be acquired by either of those institutions. He was for many years one of our Vice-Presidents, and displayed towards the Institute the same enlightened liberality which distinguished him in other connexions, having contributed largely to the fund raised for clearing off the debt with which the Institute was encumbered at its starting. His munificent gifts to the nation, far exceeding in value all that he had ever received in salary in his public employment, were fitly acknowledged by his being raised to the dignity of K.C.B. When it was suggested that the Council of the Institute should dine together after their meetings, Mr. Franks was one of those who most warmly supported the proposal; for a long time he sacrificed other engagements to that of this meeting, and he introduced to them at those dinners many congenial guests.² These may appear to be trivial incidents to record, but it is in such slight indications of a kindly and generous nature that some of the pleasantest recollections of departed friends are to be found. Of his skill and good fortune as a collector of antiquities, of his great learning in many obscure branches of Oriental art, of his enthusiastic devotion to antiquarian research, of his patient assiduity as an investigator, it is hardly necessary to speak. He inspired those who knew him best with the deepest admiration and attachment, and has left, not only in the public institutions of which he was an officer, but also in this Institute, a memory that will be long cherished.

I may pause here to note a fact of some interest. From the year 1727 to the year 1867, a period of 140 years, every Director of the Society of Antiquaries, with the single exception of Mr. Way, was a Fellow of the Royal Society. The association between the two Societies was close and intimate. For a long time they were housed in the same building, used a common vestibule, and fixed the time of their meetings at a different hour of the same evening, so that the Fellows might attend both. This close association came to an end in 1857, when the Royal Society removed to Burlington House, and was not renewed in 1874, when the Society of Antiquaries followed them there. In the interval, the meeting-room which had been occupied by the Royal Society was transferred to us. Even before 1857, however, Lord Stanhope, as a member of both Societies, had perceived that the old union between science and literature which was embodied in the pleasant relations of the past had been undergoing a process of gradual dissolution, and the tendency to confine the fellowship of the Royal Society to persons engaged in the pursuit of physical science has greatly increased since that date. Only seventeen persons now enjoy the distinction of belonging to both Societies. Fifty years ago there were eighty-one persons Fellows of both. In other words, the proportion of Fellows of our Society who are also Fellows of

¹ Now also his successor in the office of President of the Society of Antiquaries.

² He also took great interest in the revival of the annual dinner of the Society of Antiquaries, and presided at Mercers' Hall and at the Holborn Restaurant.

the Royal Society has been reduced from 14 per cent. to less than 2½ per cent. I have here gratefully to acknowledge the courtesy of that Society in lending me some of their fine collection of engraved portraits.

XXII

CHARLES SPENCER PERCEVAL, LL.D., Barrister-at-Law, grandson of the Right Hon. Spencer Perceval, was born 11th February, 1829, and elected F.S.A. in January, 1860. He was appointed Director on the resignation of Mr. Franks in 1867, and held the office until 1872, when he resigned it on being appointed Secretary of the Commissioners of Lunacy, and Mr. Franks returned to office.

In 1874 Mr. Perceval became Treasurer, and held that office until his sudden death from heart disease on 29th January, 1889. "During his tenure of the post of Director, Mr. Perceval, in addition to his other duties, edited two parts of the sixth volume of *Vetusta Monumenta*, and arranged for publication a List of Sepulchral Monuments." His favourite subject was mediaeval seals, on which "his authority was supreme". He arranged and catalogued the Society's collection of impressions and matrices of seals, and sorted out and arranged for binding the fifty parcels in which the Society's Thorpe MSS. were contained.

XXIII

HENRY SALUSBURY MILMAN, son of General F. M. Milman and nephew to Mr. Octavius Morgan, a valued Fellow of the Society, was born 26th November, 1821, called to the Bar and elected Fellow of All Souls in 1848, elected F.S.A. in 1854, withdrew in 1861, and was re-elected in 1869. He became Director in 1880, and retained the office until his death in 1893. He contributed eight memoirs to *Archaeologia*, and made several other communications recorded in our *Proceedings*.

XXIV

Harold Arthur, seventeenth Viscount DILLON, son of Arthur, sixteenth Viscount, who was himself a Fellow of the Society, was elected F.S.A. in 1873, served as Secretary from 1886 to 1892, as Vice-President from 1892 to 1896, and on the death of Mr. Milman became Director from February to April, 1894.

On the death of Mr. Franks he became President. To this statement of facts I will only add that in 1876 and 1877 Captain Harold Dillon (as he then was) and I were jointly Directors of the Anthropological Institute.

XXV

FREDERICK GEORGE HILTON PRICE was elected F.S.A. on 12th January, 1882, member of Council in 1887, 1888, 1891, and 1892, and Director 1894. He filled

that post for fifteen years, and his unexpected death in March, 1909, as the sequel of a surgical operation, was felt as a personal loss by the Fellows of the Society generally, so greatly had he endeared himself to them by his courtesy and geniality, and by his loyalty to the Society and devotion to his duties. He was a liberal supporter of Egyptian exploration, and took an active part in many explorations in England.

I believe that the following Table gives a complete list of the Directors of the Society, with in each case the date of birth (where known), date of election as a Fellow, date of first election as Director, and date of death:

		BORN.	F.S.A.	DIR.	DIED.
1.	John Talman	1686	1717	1717	1726
2.	Samuel Gale	1681	1717	1726	1754
3.	Simon Degge, F.R.S.	1694	1722	1727	1729
4.	Charles Frederick, F.R.S.	1709	1731	1735	1785
5.	Thomas Birch, F.R.S.	1705	1735	1738	1766
6.	William Bogdani, F.R.S.	1699	1726	1739	1771
7.	John Ward, F.R.S.	1679	1737	1747	1758
8.	John Taylor, F.R.S.	1704	1759	1759	1766
9.	Gregory Sharpe, F.R.S.	1713	1754	1766	1771
10.	Richard Gough, F.R.S.	1735	1767	1771	1809
11.	Samuel Lysons, F.R.S.	1763	1786	1798	1819
12.	William Richard Hamilton, F.R.S.	1777	1804	1809	1859
13.	Matthew Raper, F.R.S.	(? <i>cir.</i>) 1740	1785	1810	1825
14.	Taylor Combe, F.R.S.	1774	1799	1813	1826
15.	James Heywood Markland, F.R.S.	1788	1809	1827	1865
16.	John Gage Rokewode, F.R.S.	1786	1818	1829	1842
17.	Albert Way	1805	1839	1842	1874
18.	William Henry Smyth, F.R.S.	1788	1821	1847	1865
19.	Percy Viscount Strangford, F.R.S.	1780	1825	1852	1855
20.	Henry Ellis, F.R.S.	1777	1807	1853	1869
21.	Augustus Wollaston Franks, F.R.S.	1826	1853	1858	1897
22.	Charles Spencer Perceval	1829	1860	1867	1889
23.	Henry Salusbury Milman	1821	1854	1880	1893
24.	Harold Viscount Dillon	1844	1873	1894	
25.	Frederick George Hilton Price	1842	1882	1894	1909
26.	Edward William Brabrook	1839	1860	1909	

V. *The Church of Edward the Confessor at Westminster.* By the Very Rev.
JOSEPH ARMITAGE ROBINSON, D.D., F.S.A., Dean of Westminster.

Read 10th February, 1910.

IN seeking to recover the form and extent of the church which St. Edward built, we have two sources of direct evidence to guide us. First, there is the scanty evidence in stone, which consists of three Norman bases which remain beneath Abbot Ware's pavement in the presbytery. Secondly, we have the written evidence of a description of the church in a biography of the king written immediately after his death.

I shall begin with the evidence in stone. Last Easter (1909), following a hint of Mr. Lethaby's, I visited the magnificent ruins of the abbey church of Jumièges, and I was greatly struck by the resemblance of certain Norman bases in the presbytery to those which remain in a similar position at Westminster. I made a rough sketch of one of these, and with the help of a friend took some hasty measurements from which it was possible to set out an approximate plan of their position. On my return I found that the bases corresponded very closely in size on the ground plan with those at Westminster, but that they differed slightly in relative distances. At Jumièges the distance between two bases on one side was 1 foot less than at Westminster (13 ft. 9 in. as against 14 ft. 9 in.), but the distance from base to base across the presbytery was 8 inches more (27 ft. 4 in. as against 26 ft. 8 in.). It appeared certain that at Jumièges the original presbytery consisted of two bays and an apse, and that the bases were set against an enclosing wall, the ambulatory being an addition of a much later period. It appeared to me therefore that I had a *prima facie* confirmation of Mr. Lethaby's dictum: "If we seek for a direct prototype [of Westminster] it is probable we should look to Jumièges."¹

There is ground for thinking that Edward was at one time befriended at Jumièges by the abbot Robert, whom he afterwards brought to England and made Bishop of London. Robert, to the disgust of the English, became Edward's chief adviser, and after he had been made Archbishop of Canterbury the quarrel became so fierce that he had to go into exile; he died at Jumièges, and was buried there in the great church of his own building. We can hardly

¹ *Westminster Abbey and the King's Craftsmen*, 100.

doubt that Robert, who was at Edward's right hand from 1043 to 1052, helped to determine the plan of the king's new church at Westminster.

But one grave difficulty presented itself to my mind. All the authorities insisted that Westminster had a pillared apse and an ambulatory, probably with radiating chapels. Subsequent visits, however, to Cérisy-la-Forêt, Lessay, and some other early Norman churches, made me thoroughly sceptical on this point; and it is with great satisfaction that I find that Mr. Lethaby has on grounds of his own been led to revise his earlier judgement and has pronounced in favour of a closed-in presbytery "of the normal two-bayed type found in early Norman churches".¹

So much for the existing fragments of St. Edward's church. I turn to the written evidence. It comes to us from a writer who dedicated his work to Queen Edith, who died in December, 1075. Indeed it is quite possible that he wrote before the end of 1066, for he makes no reference to the Conquest. His style is defective and sometimes obscure; but I think that his description tallies admirably well with a church such as Jumièges was, and such as Cérisy in its main features is to-day.

Before discussing afresh this much-debated description, I will try to put into simple words what I imagine we should have seen in the year 1066. Passing east of the old Saxon church, in which the monks have continued till now to chant their offices, we enter the new church by the west porch. We find ourselves in a nave of eight bays, some 60 feet high to its wooden roof, some 72 feet wide from wall to wall.² The aisle-arches are of modest height; the triforium-arches are large single openings; above these there is a wall with small clerestory windows. Going forward to the middle of the crossing, we find ourselves in the quire, which is set under the great tower. Before us is the presbytery, consisting of two bays, and a vaulted apse; at the entrance of the apse stands the altar of St. Peter. The presbytery is walled in on either side. Looking now to the south side of the cross (and the north side has a similar arrangement) we see a low gallery, sustained by a strong pillar and a vault; above and beneath the vault an apse is thrown out to the east.³ The gallery

¹ *Journal of the R.I.B.A.*, 3rd S. xvi. 80. Models in stone of the Norman bases (a quarter of the original size) have been made, and are preserved in the Norman undercroft. Mr. Lethaby has acceded to my request that he would append a note on the architectural conclusions which may be drawn from them.

² Lanfranc's nave at Canterbury was 72 feet wide, which is one foot less than the nave of his abbey at Caen (Willis, *Architectural History of Canterbury*, 64 f. Mr. J. Bilson, however, tells me that the nave of St. Stephen's at Caen is practically 74 feet wide). The present nave of Westminster is 73 ft. 5 in. across from wall to wall.

³ Compare the language of Gervase of Canterbury, who thus describes the "cruces", or transepts, of Lanfranc's church: "utraque (sc. crux) in medio sui pilarium fortem habebat, qui fornicem a parie-

over this vault is reached by a circular staircase, bulging out in the corner of the transept. Above this low gallery the south wall of the transept rises unbroken, save for a few windows, to the wooden roof.

We may now proceed to consider the text of the passage in Harl. MS. 536, in which the process of the building of St. Edward's church is described. I have divided it into paragraphs according to the matters to which the writer refers, viz. (1) the presbytery, (2) the nave, (3) the crossing, (4) the site in general.

Principalis arae domus altissimis erecta fornicibus quadrato opere parique commissura circumvolvitur.

Ambitus autem ipsius aedis duplici lapidum arcu ex utroque latere hinc et inde fortiter solidata operis compage clauditur.

Porro crux templi, quae medium canentium deo chorum ambiret, et sui gemina hinc et inde sustentatione mediae turris celsum apicem fulciret, humili primum et robusta fornice simpliciter surgit, coeleis multipliciter ex arte ascendentibus plurimis tumescit, deinde vero simplici muro usque ad tectum ligneum plumbo diligenter tectum pervenit : subter vero et supra disposite educuntur domicilia, memoriis apostolorum, martyrum, confessorum ac virginum consecranda per sua altaria.

Haec autem multiplicitas tam vasti operis tanto spatio ab oriente ordita¹ est veteris templi, ne scilicet interim inibi commorantes fratres vacarent a servitio Christi, ut etiam aliqua pars spatiosae subiret interjaciendi vestibuli.

I venture to offer the following translation of this passage :

The sanctuary of the high altar rises up with very high vaults : it is made with squared stones and even jointing, and is brought round in a curve.

But the main church is compassed about with a double stone arching on both sides, and is closed in, this way and that, by solid work of a strong construction.

Then the crossing, which is to contain in the middle the choir of those who sing God's praises, and with its twofold abutment on either side to steady the lofty summit of the tower in the middle, rises simply at first with a low and sturdy vault, swells with many a winding stair of elaborate artifice, but then with a simple wall reaches the wooden roof, which is carefully covered with lead. Above and below projecting chapels are arranged, to be consecrated by their altars to the commemoration of apostles, martyrs, confessors, and virgins.

Now the whole of this vast and elaborate work was started so far east of the ancient church that the brethren of the place might not have to cease in the meantime from the service of Christ, and also that some part of the porch which was to be set in between might have room to follow on.

A few notes must be added on points of interest or difficulty.

tibus prodeuntem in tribus sui partibus suscipiebat . . . crux australis supra fornicem organa gestare solebat : supra fornicem et subter porticus erat ad orientem porrecta " (Rolls Series 73, i. 10).

¹ *ordita*] *orditum* MS. The writer, or a copyist, wrote it carelessly, as though the nominative had been *multiplex opus*.

Principalis arae domus] This, and not *principalis arae domus*, which is given in Camden's extract (*Reges, Reginae, etc.*, preface), is unquestionably the right reading. *Domus* is frequently used not for a complete house, but for an office or chamber in a building. Here it is the portion of the building which contains the chief altar; as the *domicilia* mentioned later contain inferior altars, and are on a smaller scale.

altissimis fornicibus] This can hardly be taken as plural for singular, and explained of the high vault of the apse alone. Two interpretations suggest themselves: either (1) the two bays of the presbytery were vaulted also, as at the Abbaye aux Dames at Caen and in some other early churches in Normandy; or (2) the presbytery was walled only up to the floor of the triforium, and the upper vault of the aisle was visible, as might well be the case if the triforium arches were large and if there was a semi-barrelled vault (*demi-bercean*).¹ The first appears to me the more natural interpretation.

Ambitus autem ipsius aedis] *Ambitus*, and not *abitus*, is the reading of the MS. Assuming, as I do, that the nave was built, and was more than thrice the length of the presbytery (as at Jumièges and at Cérisy), it is natural to speak of the nave as *ipsa aedis*. The double row of great arches, one over the other, would be the most impressive feature as you looked from side to side. *Autem* marks the contrast in passing from the presbytery to the nave.

crux templi] The word *crux* is at first used of the whole crossing from north to south, including the space under the tower. But it is presently used with reference to one side alone, as the gallery and wall at one end are described. So Gervase of Canterbury, describing Lanfranc's church, says: *praedicta magna turris crucem habebat ex utroque latere, australem scilicet et aquilonalem*.²

ambiret] The tense is explained by the foregoing context: for the writer's description does not come at the end of Edward's life, but while the work is still in progress. He uses the present tense for the most part, the "historic" present; and his relative clauses are in the imperfect subjunctive, expressive here of intention. Compare also, towards the end, *consecranda* and *interjaciendi*. But we may not assume from this that when he wrote the things described were still only in contemplation. He is describing the process of building.

simpliciter] This is perhaps in contrast to the double arcade where there is a triforium and not an open gallery.

coeleis multipliciter, etc.] *Multipliciter* is in rhetorical contrast to the preceding *simpliciter* and the following *simplici muro*.

interjaciendi vestibuli] Lit. "of a porch to be made to intervene": not *interja-*

¹ As at St. Stephen, Caen, and at Gloucester. A trace of such a vault is to be seen in the south aisle of the presbytery at Cérisy.

² Rolls Series 73, i. 10.

cendi, as it has been sometimes falsely printed. There is nothing in the language here used to suggest a temporary vestibule connecting the old Saxon church with the unfinished Norman nave. I imagine that "some part of the porch" projected conspicuously westward. The towers on either side may not have been at first carried up any great distance. There is such a projecting porch at Jumièges; and a most interesting porch of a different character is a striking feature of St. Nicholas at Caen. That the porch was a feature at Westminster will appear from a passage of Sulcard to be quoted presently.

This, then, is what St. Edward's church meant to a man who had never seen anything on so elaborate a scale before, and who writes of it enthusiastically and with considerable descriptive skill.

First, a presbytery with high vaults and a circular ending, built with even masonry.

Secondly, a great nave with two rows of arches, one above the other, on each side, and a strong outer containing wall.

Thirdly, a crossing with various notable features: namely, a lofty tower; a quire beneath it; and at either end of the crossing, instead of the triforium, a low gallery, with a spiral staircase partly in the thickness of the wall, and a long stretch of plain wall up to a wooden roof covered with lead. Chapels project on the level of the gallery and on the ground floor below.

The new church stands well to the east of the old, so that the monks remain in the interval undisturbed in their services, and there is room for a projecting porch at the west end.

But a question must at this point be faced: Did St. Edward finish his church? For nearly half a century we have been persistently assured by every writer on the subject that he did not. In 1860, indeed, when Gilbert Scott read the paper which gave its name to the important collection of studies entitled *Gleanings from Westminster Abbey*, he had no suspicion that St. Edward's church was left unfinished at his death: neither Wren, nor Widmore, nor Brayley had made any such suggestion. J. H. Parker, who edited the *Gleanings*, appended a footnote to Scott's paper in which he said: "It is clear that the choir was the only part finished at the time of the dedication." Scott then adopted this view, basing it, as apparently Parker had done, on the fuller text of the contemporary biographer which Dr. Luard had only just published.¹ Stanley in his first edition of the *Memorials of Westminster Abbey* (1863) adhered to the older view; but in later editions he recognized the new opinion of the experts. Since then we have had nothing else taught us but this novel doctrine, which has now come to be considered unimpeachable orthodoxy.

¹ *Lives of Edward the Confessor* (Rolls Series 3), 417. Previously the passage had only been known from an extract given by Camden in his *Reges, Reginae, etc.*

Let us turn back to the earliest documentary evidence, and investigate the question afresh.

Sulcard is our first Westminster historian. He was a monk under Abbot Vitalis, who was summoned from the abbey of Bernay by William the Conqueror in 1076, and was buried in the south walk of the cloister about the year 1085. We note in passing that this place of burial suggests that the cloister and frater were at least some way advanced by this date: it was a common practice to bury an abbot on the site of his building operations.¹ Sulcard's narrative is dedicated to Abbot Vitalis, whom he speaks of as both "governing and constructing" the monastery (*de hujus beati Petri quod regitis et construitis monasterio*). Most of Sulcard's work is taken up with the earlier history of the abbey: only at the close does he come to the Confessor and his rebuilding. "Up to this time," he says, "had lasted the same monastery which we have all seen: it was purposely destroyed that the nobler one might rise which now we see, wherein so great a king might choose his sepulture, and with his bountiful and energetic queen await his last day. Accordingly the work that had been begun was pushed forward by the king's command, and after a few years, supported on divers columns and vaulted with manifold arches on every side, being finished to the very porch (*vestibulum*), it was shown forth to the bishops for consecration, and to all the nobles of the realm."

As this passage has never been printed, though the most important sentences are cited in Widmore's footnotes,² I give here the text from Faustina A iii. f. 16:

Perdurabat adhuc idem monasterium quod omnes vidimus; habito consilio est dirutum, ut surgeret nobilius quod nunc videmus, et ubi tantus rex sepulturam sibi eligeret, et cum sibi desponsata unice liberalitatis et industriae regina diem supremam expectaret. Festinatur ergo ex praecepto regis coeptum opus; et post paucos annos, diversis fultum columnis et multiplicibus volutum hinc et inde arcubus, usque ad ipsum vestibulum perfectum praemonstratur consecrandis (*sic*) episcopis et cunctis regni proceribus.

Sulcard then has no notion that Edward's church was left unfinished. On the contrary he affirms that it was "completed to the very porch".

Our next trustworthy evidence is that of William of Malmesbury (1124), who says in well-known words,³ that Edward was buried in the church of

¹ About the same time Athelais, the first wife of Geoffrey de Mandeville, was buried there: as appears from his gift of the manor of Eye (Westminster "Domesday", f. 103): "Ego Goffridus de magna villa pro anima mea et pro anima conjugis mee Athelais in claustrum sancti Petri sepulte, qui et juxta eam sepeliendus sum," etc. Abbot Edwin had already been buried in the cloister, probably in the east walk. So also Hugolin, King Edward's chamberlain; and Sulcard was to follow. The remains of these three, together with the supposed Queen Ethelgoda, were afterwards disturbed at the time of King Henry III.'s rebuilding, and placed in one tomb in the chapter-house (Flete, 83).

² Widmore, *History of Westminster Abbey* (1751), p. 10 f.

³ *Gesta Regum*, Rolls Series 90, i. 280.

Westminster, which was the first built in England in that style (*illo compositionis genere*) which now all men imitate at vast expense. He gives no hint that Edward's church was an unfinished fragment. Nor does Osbert, who wrote *St. Edward's Life* in 1138; nor any ancient author that I know. The tradition, indeed, was expressly to the contrary; for Bishop Gilbert Foliot, whose powerful advocacy largely contributed to bring about the canonization of the saint, writing to the Pope in 1160 speaks of the church which King Edward had "brought to a most happy completion" (*beatissime consummavit*).¹

If indeed Edward had left the church unfinished, we should certainly expect to hear that William, who spoke in honorific terms of the place of his coronation, and was diplomatically eager to honour Edward's memory, had contributed to the work of completion. On the contrary we find the tradition, for we cannot dignify the evidence of what is called his First Charter by any higher term, that William gave a hundred pounds of silver to complete the boundary walls (*macerias*) of the abbey, besides erecting costly tombs for Edward and Edith, and making substantial gifts of estates.²

So far then as written evidence goes, I have not found a hint anywhere that Edward's church was unfinished at the time of its consecration: all the evidence goes the other way.³ Of architectural evidence all that has ever been pleaded is the discovery of "some rather rich fragments of Norman work, found under the nave floor, when the new stalls were being erected in 1848" (Scott: who pictures them in *Gleanings*, p. 15). But these may have come from a screen, or some other twelfth-century addition to the main structure.

Let us now pass from the structure of the Confessor's church to consider some of the details of its arrangement.

The quire was under the tower: it is not unlikely that it occupied a bay to the west besides. Analogy with other churches suggests that it had a small matin altar at the east of it, and was closed at the west by a stone screen with an entrance door. A bay west of the choir entrance we should expect a rood-loft, with a beam above it carrying a cross with Mary and John, and perhaps two

¹ *Materials for Life of Becket*, Rolls Series 67, v. 19: "in ecclesia . . . quam a fundamentis erectam constituit, et amplissime dotatam, omnibus quae ad decorem domus Dei sunt in honorem Dei et beati Petri nobilitatam, beatissime consummavit."

² D. (= Westminster "Domesday") ff. 51 b, 52 b.

³ It is right to refer to a statement quoted by Mr. Lethaby (p. 104) from Leland, who extracts it from a chronicle of Malmesbury: "Anno D. 1110, inchoatum est novum opus Westmonasterie" [Leland, i. 305]. The date is a mistake for 1220, and the reference is to the new Lady Chapel: the next sentence speaks of the removal (*hoc anno*) of the Canons of Salisbury from Old to New Sarum. The whole is given in *Eulogium Historiarum*, Rolls Series 9, iii. 116, under the year MCCXX (not MCX, as Leland must have read).

cherubim, as in Lanfranc's nave at Canterbury, and certainly in later times at Westminster. The rood-screen would be pierced with two small doors, between which would stand the nave altar dedicated to the Holy Cross.

As it is most important to distinguish inference from fact, I will point out that the one attested fact here is that the quire was under the tower. I shall be able later to prove the position of the altar of Holy Cross.

Returning eastwards, we have reason to believe, from what has been said above, that there was provision for five altars on the ground floor, each in its own apse: namely, the high altar at the entrance of the great apse (and therefore on the very spot where it stands to-day); an altar at the end of each aisle of the presbytery, and an altar in the east side of each transept. On the upper floor there was provision certainly for two more, and perhaps for four.

The high altar was dedicated to the Prince of the Apostles. Can we say anything as to the rest? Let us begin with what is most certain, the altar of St. Nicholas. The Anglo-Saxon Chronicle under the year 1072 tells us that Egelric, once Archbishop of York, then Bishop of Durham, after a twelve years' sojourn at Peterborough was sent as a prisoner by William to Westminster: "and there he died on the Ides of October (Oct. 15th), and is there buried within the monastery in the chapel of St. Nicholas."¹ It is interesting to note so early a dedication to St. Nicholas, before his violent translation from Myra to Bari had opened the period of his great popularity.² The present position of the chapel of St. Nicholas gives ground for a conjecture as to its place in the Norman church, viz. at the end of the south aisle of the presbytery.

The next evidence that I propose to take comes from Abbot Ware's Customary. But I must say at once that this is a dangerous book to handle. It is responsible for a number of pretty myths already, and it will mislead any one who does not constantly remember that it was begun in 1266, when there was nothing but a nave for the monks to worship in, and that it was not finished till some years after the death of King Henry III, when the new choir was in full use and linked on to the old nave.

No one who has once read them can forget the pathetic sentences in which Gervase of Canterbury tells of the five years' exile in the nave of Christ Church after the great fire of 1174.³ No such hideous disaster had befallen the West-

¹ "Innan sēe Nicholaes portice": rendered "in porticu sancti Nicholai", in *Waverley Annals*, Rolls Series 36, 192. For the use of "porticus" as a chapel cf. Bede, *H. E.* ii. 3, v. 20: also Ethelwold's *Regularis Concordia*, "eundum est ad matutinales laudes de Omnibus Sanctis, decantando antiphonam ad venerationem sancti cui porticus ad quam itur dedicata est" (Reyner, *Apostol. Ben.*, app. p. 81) Willis, *Canterbury*, p. 39, gives reasons for his bold rendering of it as *apse*.

² "The earliest authentication in an English calendar of the feast of St. Nicholas" appears to be in the Cotton MS., Nero A ii, of the eleventh century (Edm. Bishop, *Bosworth Psalter*, 171).

³ Rolls Series 73, i. 5, 10: "in hac predicta navi . . . post incendium per quinquennium exulavimus."

minster monks, but none the less they had for the time lost at least ten altars, and for more than twenty years their elaborate ritual was huddled up in the nave. The effect of this upon their customs is directly referred to in a sentence of the Customary, which occurs in a part of the manuscript considered too defective to be printed in Maunde Thompson's edition. I quote it from the original transcript which he made for the Dean and Chapter: "This, as has been said already, has gone out of use in modern times for lack of altars."¹ No doubt the inevitable breaches of custom, which were of so long standing already, made it necessary to regularize proceedings in view of a return to the normal conditions of worship. The appearance of a new Customary at this particular moment is naturally explained by such a necessity.

We must therefore try to distinguish between (1) old usages, as they are expressly called, which belonged to the Norman church before 1245; (2) temporary usages, which were necessitated by a limitation to the nave; and (3) new or revived usages, when the new quire was united to the old nave. For a hundred years after this the monks had a complete church; but then for a century and a half they lost their nave; and they had hardly regained it when the summons began to sound for their own departure. These considerations must be borne in mind if we are to find safe guidance in the Customary for any of the various periods of the church's history.

A most important passage for our present purpose is found on pp. 45, 46 of the Customary.² In old days, we are told, the sacrist kept seven lamps burning day and night in the church; but now there are only five. The reason of the change need not detain us now. Here we are concerned with the five, "which without doubt, as of right and ancient custom, the sacrist is bound to find." These are:

- (1) before the altar of Holy Cross in the nave;
- (2) before St. Paul's altar and the image of the Crucified, to kiss the feet of which the people used to go up steps on one side and down on the other;
- (3) before the old altar of St. Mary;

¹ Transcript, p. 445: "hoc, ut prefertur, pro defectu altarium ab usu recessit moderno." The corresponding passage in the derived Customary of St. Augustine's, Canterbury, (p. 311) flounders curiously in its attempted adaptation.

² "Set idem sacrista quinque proculdubio lampades per totum annum, quae in ecclesia die noctuque ex recta et antiqua consuetudine jugiter ardere solent, invenire tenetur: unam videlicet ante altare sanctae crucis in navi ecclesiae; . . . et aliam ante altare beati Pauli et crucifixi imaginem, ad quam devocionis causa ad orandum pedesque illius osculandos plebei per gradus ex una parte scandere et ex alia parte descendere consueverant; atque terciam ante vetus altare beatae dei genetricis Mariae; quartam vero coram altare sanctae trinitatis; et quintam coram altare beati patris nostri Benedicti."

(4) before the altar of the Holy Trinity;

(5) before St. Benedict's altar.

Now this is "ancient custom", belonging to the Norman church before its eastern portion was pulled down; and it is custom which is to rule the future. But we note a reference to something which the people "used to do", as though they could do it no longer.

Here, then, we have a list of the most important altars of the Norman church after the altar of St. Peter. Let us take these altars in turn.

1. The altar of Holy Cross in the nave. We had assumed the existence of this altar; and the proof of its existence carries with it the *pulpitum* with its two doors and the rood-beam and rood above it.¹

2. Where was St. Paul's altar, and the crucifix, to kiss the feet of which the people went up by steps on one side and came down on the other? I suggest that the crucifix was in the gallery of the north transept, and that St. Paul's altar was in the apse close by. Turret staircases in the north-east and north-west corners would provide the way up and the way down; and the north part of the church being furthest removed from the monastic buildings could without inconvenience be made accessible to the public.²

3. The old altar of St. Mary. A new Lady Chapel had been begun in 1220, a quarter of a century before the Norman church was interfered with. It had its own special *custos*; but the old altar remained under the charge of the sacrist. Where then was it? I should look for it on the north side of the church, if only because there certainly was a chapel of the Virgin with a wonder-working image by the north door in the fourteenth century.³ If we place the old altar of St. Mary in either of the apses on the ground floor on the north side, we shall again be meeting the needs of the general public.

4. The altar of Holy Trinity. We have a curious notice of this altar in the Customary (p. 240, and also in the transcript, p. 451). It used to be the custom for monks who had been bled (*minuti* or *sanguinati*, as they are called)

¹ The word *pulpitum* is used in various senses. I consider that the use of it for the rood-screen with its two doors and altar between, as distinguished from the quire-screen with its one door, is justified not only by the language of Gervase (Rolls Series 73. i. 9. 10), but also by the following passage relating to Bury St. Edmunds (M. R. James, *Camb. Antiq. Soc. Communications*, xxviii. 178): "A penitent under *gravis culpa* . . . pergit in ecclesiam usque ad magnum hostium chori, scilicet in medio loco inter pulpitum et predictum hostium, et ibi debet sedere super magnum scamnum" (comp. *Rites of Durham*, 33 f., "under the said loft by the wall there was a long forme which dyd reche from the one Roodedore to the other").

² So at St. Albans (*Gesta Abbatum*, Rolls Series 28 [4]. i. 287) the old cross, etc. which had been in the middle of the church, being removed when new ornaments were made, were placed "in ecclesiae nostrae parte aquilonari, ad laicorum et omnium illic adventantium aedificationem".

³ Cf. Indulgence (D. [=Westminster "Domesday"], f. 432): "capella ad ostium boreale . . . et imago virtuosa ejusdem virginis."

to say "the three prayers" on the way to matins, each as he happened to arrive before the altar of Holy Trinity: "and so they should now," adds the Customary. Then they pass on to the altar of St. John Baptist, or some other more convenient place assigned for the purpose, to say matins; but they do not begin the fifteen psalms till the brethren have begun them in the quire. I cannot locate either of these altars: but I may add some information as to one of them.

In the thirteenth century there was a tradition that it was before the altar of the Holy Trinity that St. Edward had his vision of the drowning of the King of Denmark. King Henry III. made a grant of a candle of one pound of wax from a tenant in London, to be rendered annually "on the vigil of the translation of Saint Edward, which is a fortnight after Michaelmas, for the altar of Holy Trinity, where the same Saint Edward saw the king of the Danes drowned".¹ The warrant is dated at Woodstock, 27 August, 1246; that is, more than a year after the pulling down of the Norman church was begun.

Now the earliest authority for the legend about the Danish king is Osbert's *Life of St. Edward*, which he wrote in 1138 before he went to Rome in his vain attempt to secure the Confessor's canonization. Osbert relates the vision early in his book as occurring in the church of St. Peter on Whit-Sunday, when the king was present in full state (*agebat in sceptris*). He fixes the time in his elaborate way by saying: "about the hour when the Saving Victim of the Paschal Lamb was being received by the people." He does not name the altar, but we can hardly imagine that any but the high altar is intended.²

The fact is that in Osbert's day not this, but a yet more notable vision belonged to the altar of the Holy Trinity, the vision which Edward and Leofric had together of the child Christ in the Blessed Sacrament. For this, again, Osbert is our earliest authority; and he begins his story with the words: "Once upon a time the aforesaid Prince was in the church of Westminster at the altar of the Holy and Undivided Trinity."³

But however the legend may have shifted, it is plain that in later days the altar of Holy Trinity was held in special reverence in the belief that before it the saint had seen one of his most remarkable visions. It was somewhere in the Norman church, for the sacrist had to keep a lamp always burning before it.⁴ How then could St. Edward have seen a vision before it, or even have been thought some eighty years afterwards to have seen a vision before it? It is conceivable that one or more altars in the new church were available for use

¹ D. f. 364: "ad altare sanctae trinitatis, ubi idem sanctus Edwardus vidit regem Dacorum submersum."

² Osbert MS., Brit. Mus. Add. MS. 36737, f. 142.

³ Osbert MS. f. 147.

⁴ I may add here that in King Henry III.'s time a certain rent was granted to the "procurator" of this altar by Master Simon of London (D. f. 373 b).

some years before the whole was dedicated. It is also conceivable that this Trinity altar had been actually transferred from the old church, on account of its special associations, to the new. But I can render no really satisfactory account of the matter, and I do not know of anything to show where in the yet later church the Trinity altar stood.

5. I pass on to the last altar on the list, the altar of St. Benedict. Here we have some highly interesting material from the Customary. Monks who are ailing, but not so ill as to have to leave the dormitory and go into the infirmary, are allowed for three days, or, in some circumstances, for as much as nine days, to be *extra chorum*, out of quire. They are to sit in silence with their psalters before the altar of St. Benedict while the convent is in cloister, and also during the day-hours and the masses. They are to listen to the convent saying the hours, or, if they prefer, to say them privately with the *minuti*, or bled monks, if there be any. They have meals in the infirmary, but may not miss Chapter or Collation. They are to hear compline before St. Benedict's altar, and to say the three prayers there, and wait for the brethren to come out of quire and fall in at the end or else in their proper rank.¹

Similar regulations are given, with appropriate variations, for monks who have been bled; and, more particularly, they are ordered during certain services to sit *ad librum minutorum ante altare sancti Benedicti*.² This is the Seyny Book, which I have discussed elsewhere.³ We are now only concerned with St. Benedict's altar, which was a kindly refuge for monks who were temporarily disabled from taking their full share in the services of the choir.

Where, then, was St. Benedict's altar? There can be little doubt that it was in the south transept. If we place it in the apse below the gallery, it would be close to the place where St. Benedict's chapel is to-day.

We may now spend a few moments in locating the earliest royal tombs.⁴ King Edward died on 4th January, 1066, and was buried the next day.⁵ We are

¹ Customary, transcr. pp. 425, 428 (cf. i. 297, 299); also ii. 239. I give parallel references to vol. i, the St. Augustine's Customary, where the Westminster Customary is not printed. At St. Augustine's the altar of St. Gregory held a corresponding position, and the altar of St. Benedict corresponded to the altar of Holy Trinity at Westminster.

² Customary, ii. 239, 241 ff.; transcr. p. 453 (i. 316).

³ *MSS. of Westminster Abbey*, 9-12.

⁴ In the old church Harold Harefoot had been buried, but he was dug up almost at once by his brother Harthacnut (Anglo-Saxon Chronicle, *sub anno* 1039).

⁵ I follow the earliest authority, the contemporary *Vita Edwardi*, which places the death "pridie nonas Januarii" (p. 434); as also does Osbert (MS. f. 153). This harmonizes with the fact that the feast of the "Depositio S. Edwardi" was kept on 5th January. But the Anglo-Saxon Chronicle says that he died "on Twelftan æfen", and was buried "on Twelftan dæg". So, too, William of Malmesbury (1124) places the burial on 6th January, "die Theophaniae" (*Gesta Regum*, Rolls Series 90, i. 280); and

told that he was laid in front of the altar of St. Peter.¹ This must mean within the presbytery, for the quire with its matin altar was under the tower. Osbert, after he has told the tale of Wulstan striking his staff into King Edward's gravestone, adds that in consequence of the miracle, "William the conqueror of the English fashioned a shrine of gold and silver which to this day overshadows and covers his glorious body."²

In 1075, says the Anglo-Saxon Chronicle, "Eadgyth the lady died seven nights before Christmas, at Winchester: she was the relict of King Edward, and the king had her brought to Westminster with great worship, and laid her by King Eadward her lord." For her too, as William of Malmesbury tells us, "the Conqueror made a costly tomb of silver and gold."³

On 1st May, 1118, the "good queen" Maud died at Westminster, and was there buried.⁴ A letter of Pope Innocent II. to her brother David, King of Scotland, speaks of her as lying "in sacrario".⁵ A passage of the Customary (p. 45) shows that Queen Edith was buried on the north side and Queen Maud on the south side "in presbyterio"; and that by ancient custom a lamp had been kept perpetually burning at the tomb of each, until King Henry III. made a modification of this arrangement. Queen Maud's lamp had been provided for by a grant of one obol daily from King Henry I.⁶

It seems reasonable to conclude that these three tombs were in the first bay of the presbytery: that of King Edward being in the middle, and those of the two queens near the wall on either side.

Ordericus Vitalis gives "nonas Januarii" as the day of death (ed. Le Prevost, ii. 118). Flete likewise says: "obiit nonis Januarii in vigilia Epiphaniae domini" (p. 82); and he is followed by Widmore and Stanley.

¹ *Vita Edwardi*, p. 434, "coram altare beati Petri"; Sulcard MS. f. 16*b*, "ante ipsum altare principis apostolorum"; Osbert MS. f. 153, "secus altare beati Petri apostoli."

² Osbert MS. f. 156: "qua de causa triumphator Anglorum Willelmus super sanctum regem Edwardum ex auro et argento capsae fabricam condidit, quae utique in hodiernum diem in ecclesia beati Petri apostoli gloriosum corpus obumbrat et tegit."

³ *Gesta Regum*, Rolls Series 90, i. 332: "quae apud Westmonasterium studio ejus [sc. Willelmi] prope conjugem locata habet tumbam argenti aurique expensis operosam."

What is called the First Charter of William I. contains the statement that on his first visit to the abbey the Conqueror laid two precious palls on King Edward's grave (D. f. 51*b*): and in reference to a later occasion it says (D. f. 52*b*): "et quia macerias [= enclosure-walls?] ecclesiae maxima ex parte jam imperfectas esse cognovi, ad perficiendum quod in illa residuum fuerat centum libras argenti devotus optuli. Itaque ob reverentiam nimii amoris quem erga ipsum inclitum regem habueram, tumbam ejus et reginae juxta eum positae ex auro et argento fabrilis opere artificiosi decoris mirifice operiri feci." The charter is dated 1067, but the queen did not die till 1075. Yet, though not a genuine document, it may contain a true tradition on these points.

⁴ Anglo-Saxon Chronicle.

⁵ D. f. 165.

⁶ D. f. 363*b*.

Notes on the Plan of the Confessor's Church.

For the accompanying plan (plate XIII) I am indebted to the skill of Mr. A. G. Wallace, who has taken immense pains in working out my conception of St. Edward's church and in showing its position relatively to the existing buildings.¹ Some notes by way of explanation and justification are here given: but it will be obvious to any one who has experience of such conjectural reconstructions that many points of detail might quite reasonably be treated in a different way from that which I have suggested.

The actual remains of the Norman church are no more than the three bases underneath the pavement of the presbytery and the curve of the foundation of the apse which has been found since the above paper was written. These are shown in plate XIV.

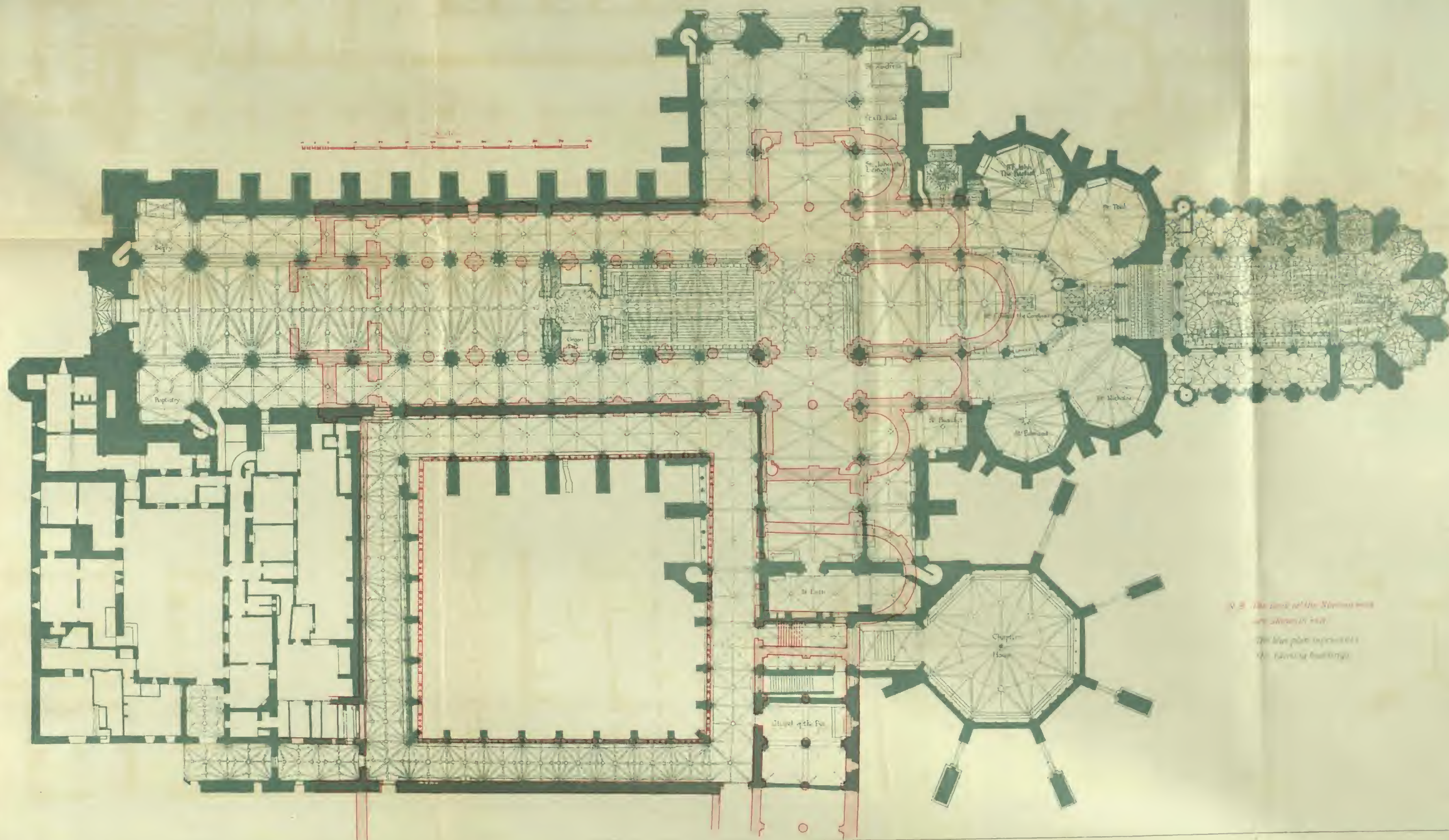
But other portions of the Norman buildings remain, which are of great importance in deciding the extent of the church itself. Last year excavation in the cloister garth revealed the line of the western arcade of the Norman cloister, just east of the present arcade and diverging from it more widely as it approaches the church. We thus learn that if the cloister walk had been left where it was, a great buttress of the new work would have come in the middle of it. So it had to be shifted westward to avoid this; and yet it had still to reach the frater door at the southern end. The old line of the arcade is now marked by stones embedded in the grass.

The change thus made was a serious one; for it necessitated the demolition of the cellarer's buildings, which formed the western boundary of the cloister, occupying the same position as the fine *cellarium* which we still admire at Jumièges. Abbot Litlington erected new buildings for the cellarer in the range which now bounds the eastern side of Dean's Yard.

The south walk of the cloister is still bounded by the Norman wall of the frater, the Norman arcading being visible on its southern face. The undercroft of the Norman dormitory gives us the eastern boundary of a part of the east walk; and it can easily be seen that this is not in line with the new work of the transept beyond the entrance to the chapter-house.

Since the foregoing paper was written, M. Roger Martin du Gard's interesting book on Jumièges has come into my hands. He shows that the

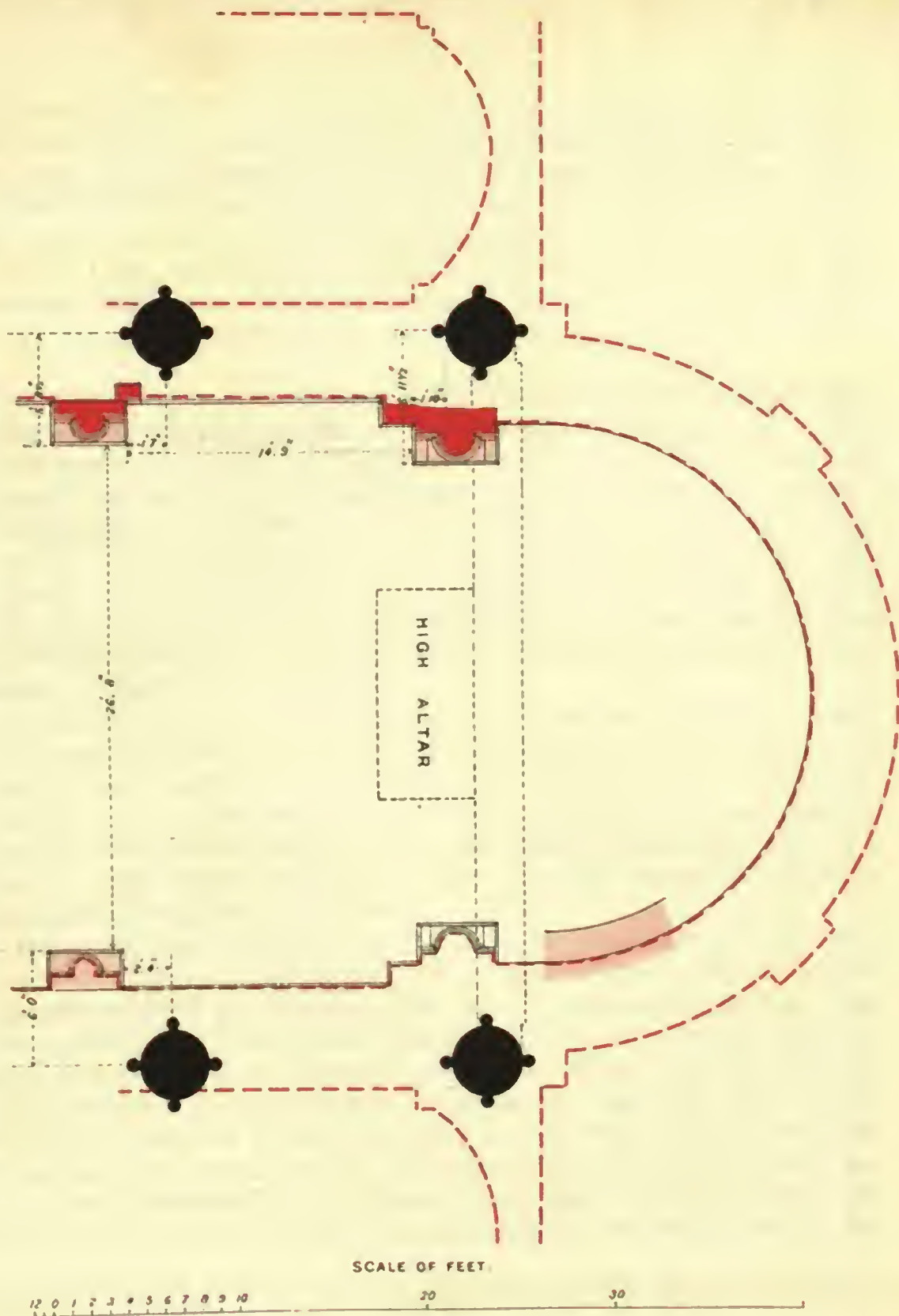
¹ A preliminary sketch was made for me by the Rev. R. G. Parsons, Fellow of University College, Oxford, who went with me to Jumièges at Easter, 1909, and to whom I owe valuable suggestions. I have used as the groundwork Mr. J. H. Cheadle's excellent new plan of the existing church.



*N.B. The line of the Norman work
is shown in red.
The blue plan represents the
existing building.*

WESTMINSTER ABBEY, - PLAN SHOWING RELATIVE POSITIONS OF THE CHURCH OF EDWARD THE CONFESSOR AND OF THE EXISTING CHURCH.





WESTMINSTER ABBEY, PLAN OF THE NORMAN BASES OF THE PRESBYTERY OF EDWARD THE CONFESSOR'S CHURCH.

gallery in the transept there came right out to the line of the arcade of the nave, covering the space between the aisle of the presbytery and the aisle of the nave. It may have been so at Westminster, for such an arrangement will suit quite well the phrases of the Latin description. But I have left my plan in this respect as it was, keeping to the type of Lanfranc's churches at Caen and Canterbury, of St. Nicholas at Caen, Cérisy, St. Georges de Boscherville, etc. M. du Gard does not mention that traces of the arrangement which he has discovered at Jumièges were found when restoration was in progress at the cathedral of Bayeux.¹

I have placed a spiral staircase in each corner of both transepts. This helps to explain the *cocleis plurimis* of the ancient description, though the words might possibly mean no more than the many windings of a kind of staircase which was new to the writer. But I had other reasons. In the first place I thus got a satisfactory place for St. Paul's altar and the crucifix, to kiss the feet of which the people went up by steps on one side and down on the other side. Moreover, though the transepts have been lengthened and widened, they still have staircases in each of their corners, a remarkable superfluity which is not easily to be paralleled elsewhere. Is this a piece of conservatism in planning on the part of King Henry III.'s builders?

Let us now come to the nave, and consider first its width and then its length. I have made it nearly as wide from wall to wall of the aisles inside as the present nave is, allowing somewhat greater thickness to the Norman walls. It may be said that this does not accord with the measures of the presbytery, and that the presbytery aisles are shown too wide. I may be wrong; but measures which I have quoted in a note at the beginning of my paper incline me to this view, although the nave of Jumièges is narrower.

I have made the nave eight bays in length, four double bays with piers and pillars alternating, as at Jumièges and in several other early churches. The east side of the porch and towers is thus nearly in line with the west side of the western walk of the cloister, as at Jumièges and in St. Stephen's at Caen. This shortening of the nave is contrary to the view of the late Mr. Micklethwaite, who had even surmised that Norman work might still exist in the core of the present western towers. It must be remembered, however, that Mr. Micklethwaite proceeded on the supposition that St. Edward did not complete his church, but left the old Saxon church still standing to serve for the time as the nave. If, as I believe, this supposition is no longer tenable, the

¹ Bouet, *Clochers du diocèse de Bayeux*, 40, where reference is made to *Description des travaux de reprise en sous-œuvre de la cathédrale de Bayeux* par MM. H. de Dion et L. Lasvigne (Paris, Morel et C^o, 1861).

shortening of the nave has two advantages; for it makes it more easy to place its completion within St. Edward's lifetime, and it leaves the more room for the Saxon church between the Norman west front and the Long Ditch, a distance which may be reckoned as from 300 to 350 feet.

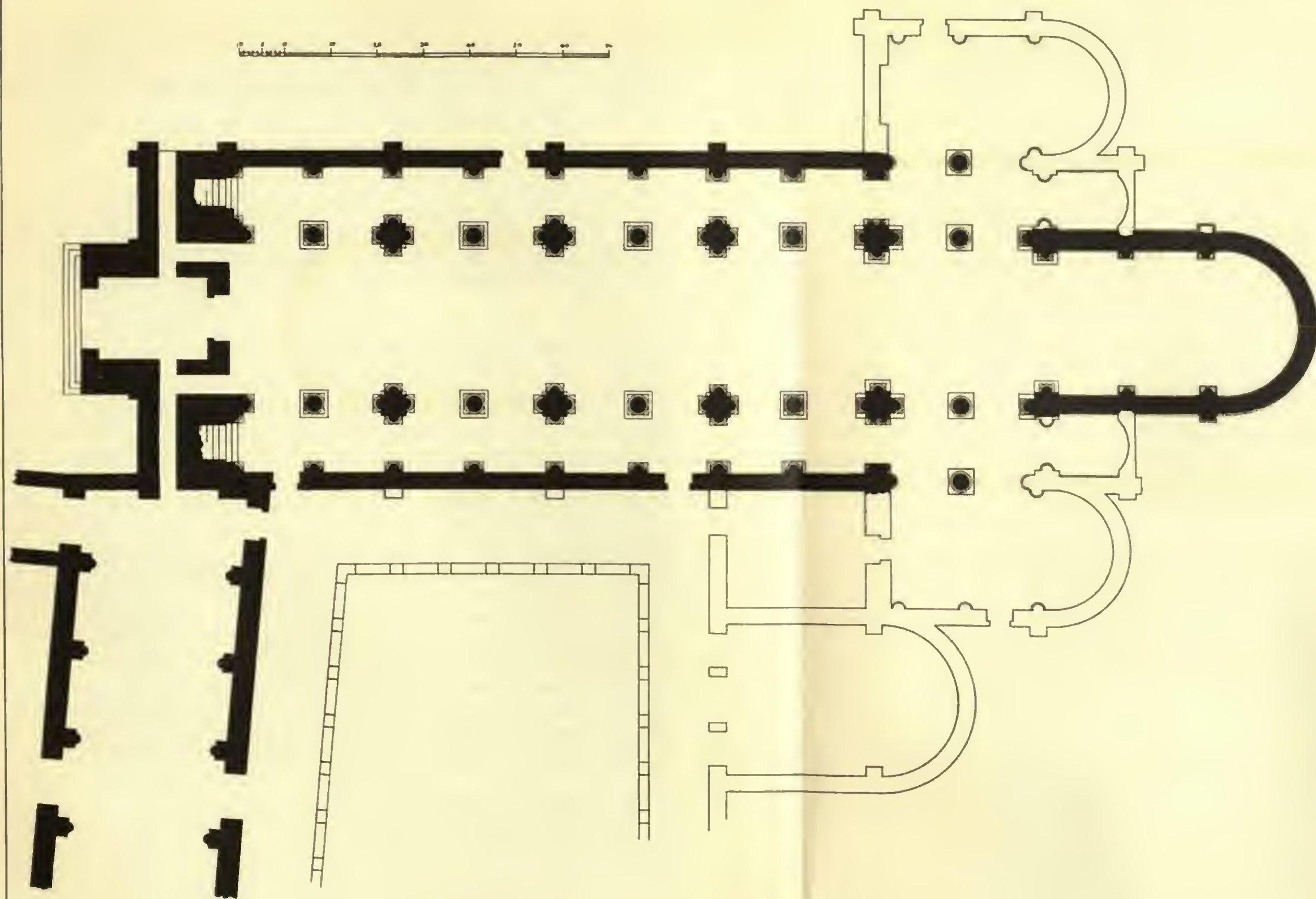
I take this opportunity of calling attention to a set of corbels on the outside of the eastern wall of Jerusalem Chamber, which seem to point to the existence of a covered passage east of that chamber at the end of the fourteenth century, leading from the Abbot's courtyard. These corbels show conclusively that when Jerusalem Chamber was built (1375) the towers did not stand as far west as they do now. This observation, which I made in April, 1909, first shook my faith in Mr. Micklethwaite's opinion as to the position of the Norman towers.

Note on the Plan of the church at Jumièges.

So great appeared to be the importance of Abbot Robert's church at Jumièges in its bearing on St. Edward's church at Westminster, that after a careful study of M. Martin du Gard's valuable book I visited it again in April, 1910. Through the very kind offices of M. du Gard I obtained full leave to photograph and take measurements. Mr. Wallace has drawn for me a plan of the Norman work (plate XV), on a larger scale than M. du Gard's plans, from fresh measurements which he took with the kind assistance of Mr. Gladwyn Turbutt. The outlined portions of this plan represent either parts which have not been measured again or else conjectural reconstructions.

There is a curious irregularity both in the measures of the piers of the nave and in their distances from the pillars next to them. It may also be noted that the bases of the western towers extend slightly further to the east than the eastern face of the great porch. This and some other observations led us to question the theory of the priority of this portion of the church to the nave.

M. Martin du Gard's conjectural restoration of the aisles of the presbytery was the result of excavations and soundings made by him which it was not possible for us to test. It is only with great hesitancy that we have placed the aisle-apses a bay further west than his plans indicate; for indeed the arrangement which he has suggested is the most common in Norman churches of this type. But a difficulty arises from the fact that the moulding of the plinth of the eastern buttress on the south side of the presbytery is continuous, and goes on both east and west on the outside of the wall. This would be right for an external buttress, but seems incompatible with an apse to an aisle at this point.



PLAN OF THE ABBEY CHURCH, ETC. OF JUMIÈGES.

Published by the Society of Antiquaries of London 1851.



We have therefore placed the aisle-apses further west: not with any feeling of certainty, but in order to call attention to the curious problem which this moulding suggests. It is possible that the foundations which were discovered may have belonged to some of the later work: and it is much to be desired that more complete excavations may be undertaken, in order to discover, if possible, what the original arrangement really was.

I am so grateful to M. Martin du Gard, both for his book and also his personal friendliness, that I am very unwilling to appear as his critic: but these observations are necessary in order to explain the very unusual reconstruction suggested by our plan. I am glad to have this opportunity of paying a tribute to the great care and expense bestowed by the present proprietress, Madame Lepel-Cointet, on this precious monument of Norman architecture.

*Note on the existing remnants of the Confessor's Church. By Professor
W. R. LETHABY, F.S.A.*

In 1866 Sir Gilbert Scott discovered the remains of three ancient piers beneath the presbytery floor on the occasion of his laying the marble extensions to the mosaic pavement. He thus referred to them in one of his lectures published in 1879. "We have recently discovered beneath the pavement of the altar-space the bases of two (*sic*) of the great piers of the sanctuary. From which we found that they were clustered, not unlike those of St. Stephen's at Caen. The bases consist of double hollows precisely like one from that church. The work is by no means so rough as that common in early Norman buildings."¹ It seems that Scott meant isolated piers when he spoke of the "great piers", not wall-piers, although at St. Stephen's the piers in a similar position were attached to a wall which enclosed the presbytery. In any case, the remnants do not seem to have been closely scrutinized or planned; for it was not pointed out, that of the two stumps of piers on the north side, the more eastward one had an additional break on its western face, and projected further into the area of the presbytery, so that the clear space between the eastern piers on its opposite sides must have been fully two feet six inches less than the space between the piers further to the west.

Mr. Micklethwaite described the remnants more particularly thus: "They are the inner parts of the bases of the piers which separated the choir from the aisle which went around it. They were left when the rest was hewn away to

¹ The third remnant is only a plinth stone. It is remembered that the fourth, opposite to the eastern one on the north side, was sought for, but nothing was in place.

make room for the foundation of Henry III's work. The piers have been such as we find in other churches built within the eleventh century, as, for example, Blyth, Nottinghamshire, where, as here, we have the square wall-pilaster with a round shaft in front of it and the base mould of the shaft continued along the face of the pilaster, but stopping with the section at its sides."¹ This description was illustrated by a perspective sketch of the west side of the eastern pier which has the extra break, and hence looks more like part of an isolated pier than does the other further west, which consists only of a wall-pilaster with a bold half-round shaft in front. Attention was called to this difference only in these words: "The eastern of the two old bases on the north side, though parallel with the western, is twelve inches nearer to the centre, which is more than could well come from mere irregularity in setting out."

After I had observed the difference between the two piers on the north side it seemed obvious that the one to the east must have been one of the responds to the arch opening to the apse, and a comparison with a series of early Norman plans fully confirmed this view. It was natural at a time when the ambulatory type of plan was better known than that of the closed-in presbytery, and when the general sequence in the development of Norman plans had not been worked out, to assume that the fragments belonged to isolated pillars instead of to wall-piers, yet the fact that just these parts remain which would represent piers attached to walls rather than isolated pillars, goes far to prove that such they were; further an alternation in size in isolated pillars, made up of grouped members, would be very remarkable at so early a date, especially in the short length of a presbytery.

Access to the stumps of masonry is made possible through trap-doors, 18 inches square, but the space round about them is so confined, and the evidence has been so obscured by the new masonry forming the pits and by the concrete filling under Henry III's pavement, that it is, perhaps, impossible to say whether any part of an early side wall still exists. One small point, however, in favour of such a wall, is that a chamfered stone on the eastern side of the west pier is so shallow that it suggests the plinth to a continuous wall rather than a block under a pier. Although the positive evidence is enough to show that the Confessor's presbytery was closed after the second bay by an apse with a continuous wall, it may be allowed that there is not proof, direct and absolute, that the two bays of the presbytery may not have had arches communicating with the lateral aisles, but analogy with a series of plans, generally similar, shows that the side walls of the presbytery were probably solid, as, to take a well-known example, were those at St. Albans.

¹ *The Archaeological Journal*, March, 1894.

The floor of the Confessor's presbytery was about 4 ft. 6 in. below the present high level by the altar, and of the eastern pier three courses of masonry (together 3 ft. 3 in. in height) are left. The masonry is of Reigate stone, accurately worked, and large in scale, the semicircular attached shafts having a diameter of 1 ft. 8½ in. The surface seems to have been covered with lime-wash. The clear space between the plinths of the two piers on the north side is 14 ft. 9 in., and the western or normal pier is 4 ft. wide at the plinth. This suggests a dimension for the ordinary bays of 18 ft. 9 in. from centre to centre. The width of the presbytery between the plinths of the two western piers is about 26 ft. 8 in., and between the plinths of the two eastern ones would have been about 24 ft. 2 in.¹

After the Dean had read his paper I obtained his permission to search for traces of the apse under a piece of modern pavement just to the east of the south door in the reredos. We found that under the pavement of the Confessor's Chapel the ground had been made up for several feet by a filling of stone chips, the waste from a mason's yard. On digging to a depth of 5 ft. 8 in. through this filling, we reached the flat surface of a hard mass following a concave curve tending east and north. We exposed the top surface of this so far as seemed safe, and found that its width extended more than 3 ft. towards the south-east: how much wider it was cannot be said. We now dug deeper along the curved front of this hard mass and found that it was a foundation-wall of concreted rubble largely of flints. The upper surface of what remained was in part covered with broken Roman tiles which may have been laid as a bond course, but not enough tiles were found to make this certain. A total depth of 7 ft. 8 in. was reached, and here we seemed to come to undisturbed sandy loam. This level is 2 ft. 4 in. below the ambulatory floor. The height of the foundation thus exposed was about 2 ft.

On laying down a line for an apse following the measurements taken by the Dean at Jumièges, it was found that this line corresponded with, but was of larger radius than, the curve of the foundation, so that the latter must have projected about 1 ft. 6 in. from the surface of the apse wall.

The foundation was traced for about seven feet, and then it was judged to be inadvisable to mine under the floor any further. The excavation has now been walled round in such a way that the foundation may be examined again at some future time if it is desired, but this cannot easily be done as the pit is covered by a heavy stone.

In digging the hole several large pieces of Roman tiles (bricks) were found, also one fragment of a Roman roof-tile with flanged sides, and some lumps of

¹ Mr. Wallace has kindly given me these dimensions.

a floor of *opus signinum*, that is, of mortar and broken tile, about three inches thick. Other portions of a similar destroyed floor have been discovered before in making excavations in the nave, and it may be put on record here that there is in our collection of fragments part of a Roman flue-tile, $6\frac{1}{2}$ in. wide, and scored in the usual way on the surface thus + and thus × like a Union Jack. It is evident that there must once have been an important Roman building on the site.¹

¹ See vol. i of London in the Victoria County Histories.

VI. *On the Use of the Deer-Horn Pick in the Mining Operations of the Ancients.*
By HORACE W. SANDARS, Esq., F.S.A.

Read 24th February, 1910.

IMPLEMENTS fashioned from the antler of the red deer have long been known to have formed part of the tools with which primitive man and his successors in much more recent times carried on the varied industries that claimed his care and skill, enabling him to turn to good account the many products of soil and chase which thoughtful Nature had placed at his disposal. Almost every part of the antler was utilized; the tines being removed in order to form gouges, punches, hand levers, and piercing instruments, while the beam, when deprived of its tines, was cut up into sections from which adzes and such-like cutting implements were formed, or hammers were devised. A useful instrument which served as a rake, or scraper, was made from the branching points at the cup; while a clever combination of beam and tines produced a tool which served the double purpose of pick (or lever) and rake (or scraper). Much ingenuity was shown in devising and considerable skill in forming such implements, but in no case is this more evident than in that of the deer-horn pick. Generally speaking, the pick was formed from an antler by severing the cup end and removing the bez and the trez tines, thus leaving the beam to form the haft and the brow tine to form the pick (fig. 1), while the burr remained in position in order to give strength to the weakest part, the angle of intersection between the handle and the "blade", and to add weight to the blow. The "false brow", or undeveloped bez, was sometimes left in place (plate XVI, no. 1), but this was rather the exception than the rule. The upper portion of the beam or the longest point beyond the "cup" was often left in position to form an elongation of the shaft which assisted greatly in directing the blow, while it added very materially to the leverage of the pick. Fig. 1 offers a very good example of a double-handed pick with an elongated shaft, and with blunted point and stem worn smooth by usage.



Fig. 1. Deer-horn pick found at Silchester.

Both shed antlers and those from the heads of slain deer were made use of; and although the use of the former may have been the rule, I am inclined to the opinion that the class of antler utilized depended much upon the locality where these tools were made. The antlers of stags of different ages were brought into service, but, generally speaking, those from fully grown animals were preferred. The red deer, the *cervus elaphus* of neolithic and even of much later times, had far finer heads than the red deer of to-day, and some picks, as I will show later on, must have been from antlers of colossal size. Irregular growths of the trez tine were cleverly utilized to form implements which could be adapted to special purposes. Some picks were intended to be used with one hand, while others required two hands to wield them, and others again were specially adapted for usage by both hands in confined and narrow places. Double-handed picks form a special feature of the tools from the flint-mines near Beauvais in France.

Practically all the deer-horn implements which I have mentioned were utilized by miners in ancient times; but especially by miners for flint, as I will proceed to show.

It is only within recent years that attention has been directed to mining operations in the Stone Age, and this probably accounts for the comparative paucity of sources of information on this interesting branch of archaeological study. The countries in which research has been made into this special but important subject are confined, in so far as I am aware, to Belgium, France, England, and the United States of America.¹ I have named them in the order of their importance with regard to the extent of the investigations carried out and of the publication of the results obtained; but I have no doubt that further research would show that many other centres of neolithic mining activity exist, and that there are numerous other sites, even in our own country, where the industry was carried on. Indeed, it is probable that closer investigation will show that the so-called "Dene-holes" were, in many instances, but neolithic flint-mines. There is no proof that flint nodules were mined in paleolithic times, and it is only during the later neolithic period that distinct and incontrovertible evidence of systematic mining operations by primitive man can be found. I use the word "systematic" advisedly, because investigation over a somewhat wide field of research has shown that mining in neolithic times was conducted on the same fundamental principles that regulate similar operations at the present day. The industry may be divided into two main groups, viz. mining by "open cast", and mining by shafts and galleries. There is one other main principle in mining which the ancients followed. They located the "vein"

¹ I make no further reference to the United States as I am not aware that implements of deer-horn have been found in the ancient flint-mines in that country.

"at surface" and followed it down, either as I have already mentioned, by opening trenches on the back of the vein or deposit, or by sinking shafts and driving galleries. They carried into effect the true practice of mining still further, for when sinking their shafts they did so with a definite object in view, viz. to reach a certain bed of flint which gave them the product best adapted to the manufacture of the particular objects to which it was to be applied. They knew beforehand how far they would have to sink, and while sinking they passed through and neglected the several layers of flint which they knew to be inappropriate to their purpose; just as, in our times, a miner for coal would know the depth to which he would have to sink his shaft before he started operations, and would neglect the minor or inferior-quality seams which he might meet on his way before reaching the main seam which it was his primary object to attain.

Perhaps the best example of flint-mining by "open cast" is to be found at Obourg in the province of Hainaut, Belgium, where several of the ancient trenches were examined by M. E. de Munck in 1880-1886 (1).¹ A typical example measured 5 metres (16.4 feet) in length, by 6 metres (19.6 feet) wide at the top, and from 4 to 5 metres (13.1 to 16.4 feet) at the bottom, while the depth was 3 metres (9.8 feet). Some of the trenches reached a depth of 4 metres (13.1 feet) in order to attain, in all probability, a particular layer of flint. They were of considerable length and their preparation must have entailed much labour in the removal of the overburden. The trenches were in close proximity to each other, and in some cases a communication had been established between two "open casts" by means of a gallery or tunnel, in order, most probably, to facilitate the working of the mine and the removal of the silex. In one instance, the tunnel measured 3 metres (10.8 feet) long by 1 metre (3.28 feet) high and 1 metre wide, but the latter measures must have been exceptional as, in another instance, the tunnel was of the more normal height of 70 centimetres (2 feet 9 inches) and 60 centimetres (2 feet) in width. The neolithic miner, like his successor of to-day, only did just sufficient work underground to enable him to get, and often with great discomfort, to where he wanted to go. The trenches had been filled in of old with the débris usual in such cases, viz. with blocks of chalk, sand, and clay (the "spoil" probably from the neighbouring trench), with which were intermingled objects in partly worked flint, bones of animals, much-worn deer-horn picks and other mining implements. The sides of the open casts showed unmistakable traces of the usage of these implements, a large number and a considerable variety of which were also found in the old workings. It is, however, a remarkable fact that mining tools made from flint do not appear to have been used in these mines, as they undoubtedly were in the flint-mines at Spiennes and elsewhere. Among the deer-horn implements found were pickaxes, single-

¹ These numbers, (1), etc., refer to the bibliographical references at the end of this paper.

(fig. 2) and double-handed (fig. 3); rakes (fig. 4); and a combined tool forming a rake at one end and a pick or lever at the other (fig. 5). The neolithic miner



Fig. 2. Single-handed deer-horn pick.

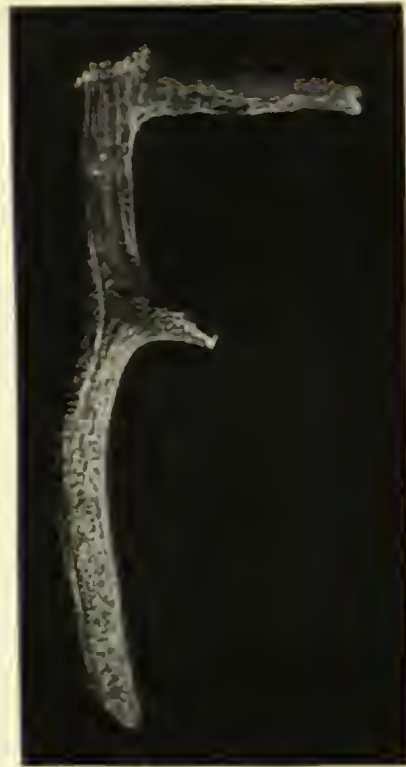


Fig. 3. Double-handed deer-horn pick.

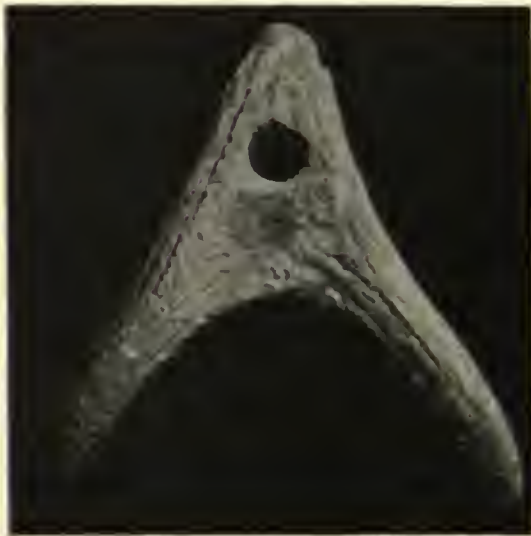


Fig. 4. Deer-horn rake.



Fig. 5. Deer-horn rake and lever combined.

gave a "batter" or slope to the sides of the excavations in which he was working in order to ensure their stability; but that he was not always successful

in achieving his object is shown by the discovery of the skeleton of a miner in the ancient Obourg workings by M. E. de Munck in 1891. He was employed in driving a connecting gallery or "cross-cut", when he cut into a "pocket" of sand, or pot-hole, which "ran in" upon him and buried him with his tools (2). He was using, as was to be expected in view of the confined space in which he was working, a single-handed deer-horn pick, cut from the cup end of an antler which was very flat in the beam. The tines were well developed though somewhat irregular in form. Fig. 6 gives an illustration of this pick, which shows distinct signs of wear. It is possible that the bifurcating points had been left in place (cf. plate XVI, no. 6) and were broken off subsequently to the accident, as a complete implement of that form has been found in other workings at Obourg.



Fig. 6. Deer-horn pick found with the skeleton of a miner at Obourg.

I am indebted to Dr. E. Houzé of Brussels for the following description of this skeleton:

The Obourg man was sub-brachycephalic (c. i. 80.0) and platyrrhine; his stature, estimated from the long bones, was 1.55 m. (5 ft. 1 in.). Viewed in *norma verticalis*, the parietal bosses occupy exactly the same position as in the case of the brachycephals of the series which I examined at Hastière. The femur is platymeric, and has a hypotrochanteric fossa and a third trochanter. The tibia is platynemic and the head is retroverted.

I might mention here that the skeleton of another neolithic miner was discovered at Strépy, in Belgium, in 1905, accompanied by a child of about five years old. In this case the miner was working on a bank of dark flint nodules at the bottom of a trench about 3 metres (10 feet) deep, when the side gave way and buried the victims (2). A fine single-handed deer-horn pick still lay close to the miner's hand; and another deer-horn implement, probably used for levering up the nodules, was found close by; while a very good specimen of a two-handed pick, which the miner had evidently used, was discovered in another part of the trench. The bank of flint mined was the fourth from the surface, and the last in the chalk of the district. In this instance the cranium was decidedly brachycephalic, the lower jaws were powerful, and the teeth were worn to a flat surface, a characteristic of the neolithic populations of that part of Belgium. Some of the teeth had been destroyed by disease, which had even extended to and affected the bone of the lower jaw.¹

¹ These skeletons and the implements found with them are to be seen at the Natural History Museum in Brussels.

As was usual in such cases the mining activity at Obourg was accompanied by a separate industry, which consisted in working up the flint nodules at surface into different forms, and manufacturing therefrom the varied weapons and implements which are characteristic of the neolithic period; and traces of many of the sites of such "factories" have been found in the neighbourhood of neolithic mines. They afford at Obourg a very good example of the directness of purpose in the mining operations of the ancients, since it is evident that the bank of silex mined produced a flint peculiarly adapted to the manufacture of fine and long knives and of scrapers, but not to other implements, such as axes, etc. Indeed, one of the few polished axes found here proved to have been manufactured of flint from Spiennes (1, p. 349).

It is to Spiennes that we must turn for the best-known examples of neolithic mining, which have been so carefully examined and so often published that they may be said to have become historic. These mines were first noticed by M. C. Malaise (4 and 7) in 1866, who mentions that they were discovered while the very same bank of silex which was utilized by neolithic miners was being worked for the supply of a neighbouring pottery. The old galleries produced a large quantity of partly worked flints, as well as a deer-horn pick and parts of a human skeleton. It was only in 1867, however, at the time of the construction of the railway from Mons to Charleroi, that the neolithic mining district of Spiennes could be carefully studied and reported upon. This was done by MM. Cornet and Briard (5), and they were followed in 1887 by MM. Baron de Loë and E. de Munck, who again examined the field (6).

Neolithic mining was carried on at Spiennes by two distinct methods, viz. by means of galleries driven in from the sloping surface of the ground where it falls away to the river Trouille (10), and by shafts sunk from the surface of the plateau above (6). The galleries were driven in the chalk and on the upper surface of the bank of flints which formed the objective of these ancient mining operations, and outcropped on the side of the hill. They yielded the usual evidence of the period of their construction and the purpose for which they were made in the form of partly worked flints and of deer-horn picks. It is possible, and indeed probable, as MM. de Pauw and Van Overloop have mentioned, that these galleries indicate an earlier period in the development of the flint-implement industry than the shaft mines in the same district; and I venture the opinion that the proofs of age, when considered from a purely mining point of view, and as deduced from the evidence of the methods pursued, point to the conclusion that the open casts at Obourg preceded the galleries at Spiennes, and that it was only in later neolithic times that experience in mining and the knowledge of the conditions under which it could best be undertaken and safely carried on, led to the more scientific methods of sinking by shafts and of extend-

ing in all directions the underground workings. The shafts at Spiennes are scattered over a surface of more than sixty acres, almost entirely covered with the débris of the neolithic workshops, which is three feet deep in places. It has so rarely happened that such a large number of shafts has been disclosed in so relatively small a space that I reproduce in fig. 7 a section of the railway

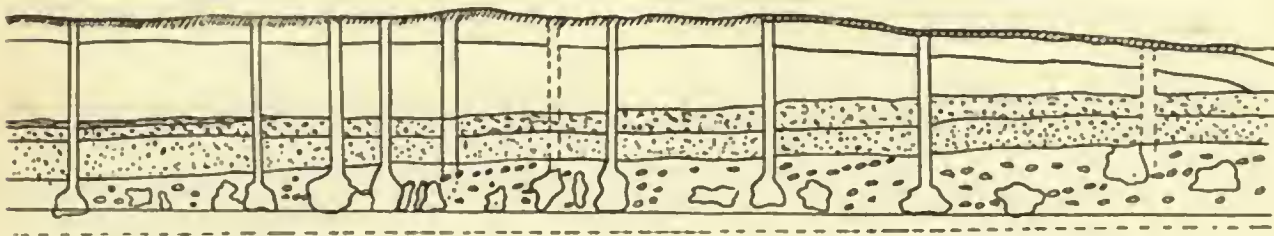


Fig. 7. Section of the eastern portion of the railway cutting at Spiennes, showing the position of the shafts and galleries. Scale, 1-500.

cutting at Spiennes, taken from the *Compte rendu* of the Congrès international d'Anthropologie et d'Archéologie préhistoriques, 6^e session, Brussels, 1892. This shows ten shafts, almost in line, and the galleries with which they were connected. The object in sinking these shafts was to attain the sixth layer of flint in the underlying cretaceous deposit, and the neolithic prospector proceeded on his task in a miner-like and eminently practical manner. He was quite well aware, from the evidence afforded by the old adit workings, that he would have to go down to the sixth layer of silex, which alone offered those properties of cleavage and qualities of texture which permitted of its being worked to good purpose after it had been won. He also knew that in order to reach that bank he would have to sink through a considerable depth of overburden, composed of quaternary and tertiary deposits, before he could expect to reach the chalk; and that his labour would not even then be finished, as he would have to continue to sink through harder material and through several layers of flint before he could reach his final goal. As a matter of fact he sank his shaft through

- 1.50 m. (5 feet) of alluvial deposits.
- 4.00 „ (13 „) „ quaternary gravels.
- 1.50 „ (5 „) „ a deposit of water-worn pebbles and débris, in which the remains of the mammoth and of the rhinoceros, as well as paleolithic implements, are found.
- 2.50 „ (8 „) „ tertiary greensand before reaching the chalk (5, p. 290).
- 9.50 „ (31 „).

At another spot in the neighbourhood the neolithic miner went through more than 10 metres (32.8 feet) of quaternary deposit before reaching the bank of flint

he was sinking for, which lay in this case on the top of the chalk, and the existence of which could not even be suspected at surface.

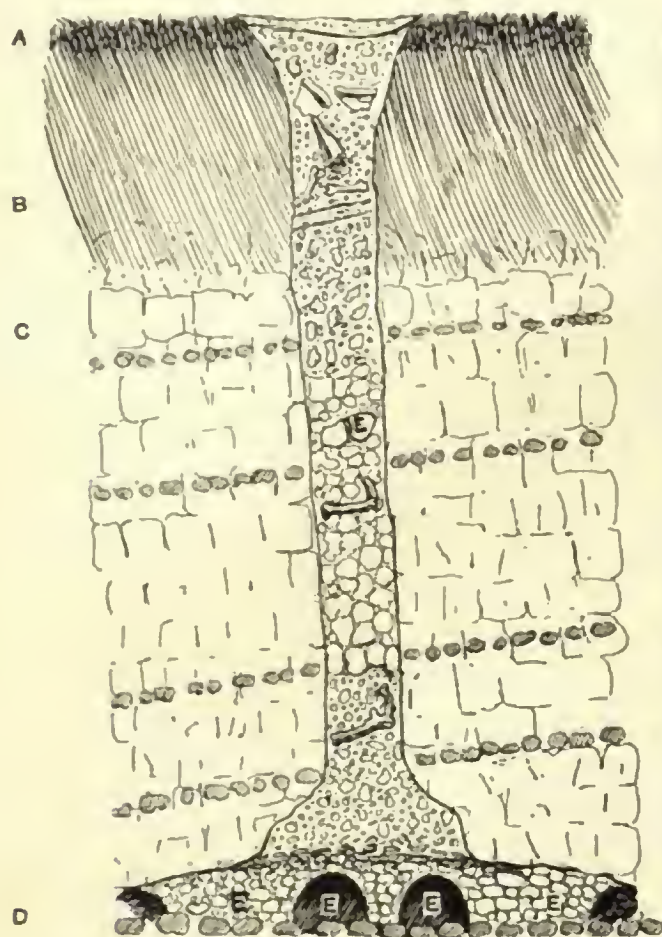


Fig. 8. Section of a neolithic shaft. Scale, 1-10.

would be continued until the fifth layer of flint (D) was reached at some 12 metres (about 40 feet) from surface. Here the exploitation, properly so called, of the mine would begin, the first operation being to widen out the bottom of the shaft so as to form a chamber E, about 1.20 to 1.50 metres (4 to 5 feet) high and about 2.50 to 3 metres (6.5 to 10 feet) in diameter. It is from this chamber that the different galleries or workings radiated. The orifice of the shaft was also widened out to about 2 metres (6.5 feet) and the sides, for a short distance down, were given a batter in order to facilitate work at the top of the shaft and to lessen the risk of the ground becoming detached and falling on the men below.

The sides of the shaft were not always parallel nor were they always vertical, but it is indeed remarkable how even and straight they were frequently made. The neolithic miner who was occupied in shaft-sinking worked in a very confined

Fig. 8 represents a typical shaft as sunk under the conditions that prevailed in Belgium and elsewhere on the Continent, and in accordance with the mining principles of later neolithic times. The practice in Britain, as I will show later on, appears to have differed in detail, and points, I think, to somewhat less advanced methods of mining. The usual procedure was as follows: operations were commenced, at a convenient point at surface, by making an excavation as nearly circular as possible, about 80 centimetres (32 inches) to 1 metre (39 inches) in diameter, through the surface soil (A), which is supposed to be 50 centimetres (20 inches) deep, and then through three metres (9.8 feet) (B) of loam and clay until the chalk (C) was reached. At this point the work would become harder and care would have to be exercised when the layers of flint were passed through to prevent the nodules from subsequently becoming loosened and falling down the shaft; but sinking

space, sometimes not more than 60 centimetres or 80 centimetres in width (about 24 or 32 inches) (5); and that he went down to nearly 12 metres (40 feet) under

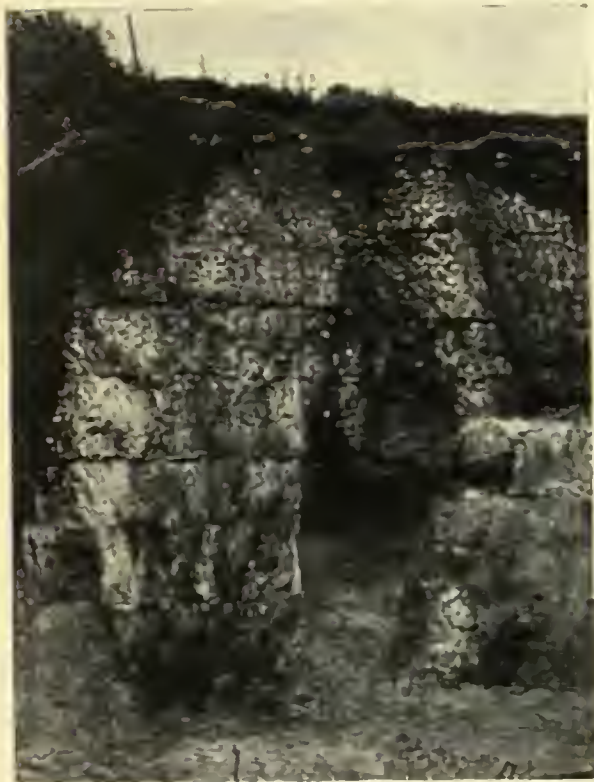


Fig. 9. Neolithic flint-mines at Champignolles.



Fig. 10. Continuation of fig. 9.

such conditions speaks well for his skill as a craftsman. Fig. 9 shows, in a photograph which I took in July 1909, the section of a vertical shaft at Champignolles (11) near Sérifontaine in the Département de l'Oise in France, with the chamber at its base. The depth of the shaft was in this instance about 565 m. (185 feet). The different banks of flint through which the miner passed before reaching the workable deposit can be distinctly seen.

Fig. 10, from a photograph taken in close proximity to the shaft in fig. 9, shows the quaternary deposit of loam mingled with fragments of flint through which the miner would, in places, have to pass while shaft-sinking before he could reach the chalk which held the nodules he was making for.

Generally speaking the form of the neolithic shaft and chamber may be compared to that of a bottle with a long neck, or to a Roman glass *unguentarium* (fig. 11) (12). The chamber at the bottom of the shaft has been a puzzle to many, but its purpose can be easily explained. It was



Fig. 11. *Unguentarium* representing the form of the section of a neolithic shaft.

excavated in order to give room for developing the mine and to enable several miners to work simultaneously (13) on the bank of flint, whereas one man only could work in the shaft; and a space was required to permit of their dealing with the chalk excavated from the galleries and for handling the nodules and sending them up to the surface. The deer-horn pick was certainly used for shaft-sinking as well as other tools. At Spiennes and Champignolles, flint implements in the form of picks (fig. 12) were also employed, both for sinking and for dressing or removing asperities from the sides of the shaft (6, p. 4), a thoroughly miner-like proceeding. These picks were either hafted into a deer-horn handle, or used in the hand after the sharp edges had been removed. But the real



Fig. 12. Flint picks from Spiennes.

work in the mine was carried on by means of the galleries which radiated from the central chamber. These were at times as many as six or seven in number (14), and in them as many miners could work concurrently if desired. The galleries were usually about 60 to 80 centimetres high (24 to 32 inches), and of about the same width when driven in a definite direction with the object of reaching a new field of operations or of communicating with a neighbouring shaft. In other words, they were just and only just large enough to permit of a miner working within them. The neolithic miner wasted no time or energy in doing more than the minimum amount of work necessary to enable him to attain the object he had in view; just as the Roman miner did, and the miner who followed him; and just as his congener of to-day would do and does when left to his own devices. The galleries were usually driven in chalk or solid ground, while the "sole" or floor was formed by the bed of flints to be worked; and they gradually opened out in width so

as to offer a wider field of operations, care being taken to leave a barrier or wall of chalk between the galleries and workings so as to serve as a support for the roof. Sometimes, however, the galleries were driven "into the country", and working chambers were opened out from them on either side. Fig. 13 gives a diagrammatical illustration of the ground plan of a neolithic flint-mine, showing the converging and diverging galleries, and the different forms they took. It has been composed partly from personal observation of ancient workings, and partly, indeed mostly, from illustrations in various works which deal with this special subject. The figures refer to the sources that have been drawn upon for the illus-



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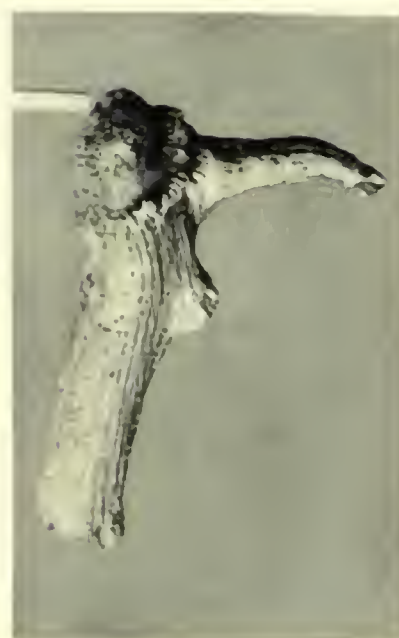
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7



8

DEER-HORN PICKS FROM FLINT-MINES

1. From Grimes Graves, Weeting, Norfolk.
- 2, 3, 4. Obourg, Belgium. Musée Royal d'Histoire Naturelle, Brussels.
5. Spiennes, Belgium. Musées Royaux du Cinquantiennaire, Brussels.
- 6, 7, 8. Champignolles, near Sérifontaine, Oise, France. Collection of Dr. Bandon, Député de l'Oise, Beauvais.

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tration, while "S" = a shaft, "P" = a pit, and "W" = the so-called "windows" or ventilating openings.

It is in these galleries and old workings that the greater part of the mining tools are found. They are of more different kinds and more varied in form than the implements found in the shafts, but the deer-horn pick always predominates as the tool *par excellence* of the neolithic miner; and several of these are illustrated on plate XVI.

No. 1 is a very fine specimen from Grimes Graves. No. 2 is from Obourg. In this instance the *trez tine* has been utilized, and the "scars" left by the flint-saw used for severing the beam can be distinctly seen. No. 3, from Obourg in Belgium, is a remarkable specimen, in that it is formed of the cup and points from the upper part of a gigantic antler and that the lower point has been "bevelled" so as to form a chisel or cutting edge. No. 4 is a heavy pick from Obourg. No. 5 is an exceptionally fine example from Spiennes in Belgium, made from the antler of a slain stag. The back of the implement has been used, at the burr end, as a hammer. Such was also the case with another specimen from Grimes Graves, as can distinctly be seen in fig. 15. Nos. 6, 7, and 8 are from Champignolles in France. No. 6, again, has been formed from the cup end of an antler, and shows traces of long usage at the point. The terminating tines were probably utilized as a hoe or rake, or as a lever for dislodging the nodules of flint in the mine. In nos. 7 and 8, which were both cut from the top of an antler, the end of the shaft or uppermost point was left in position, as frequently happened at Champignolles, thus rendering the pick an exceptionally useful double-handed implement, as I have already explained. Speaking generally, the deer-horn picks found in neolithic workings were abandoned because they were worn out, and in many cases the effects of long usage can be distinctly seen on

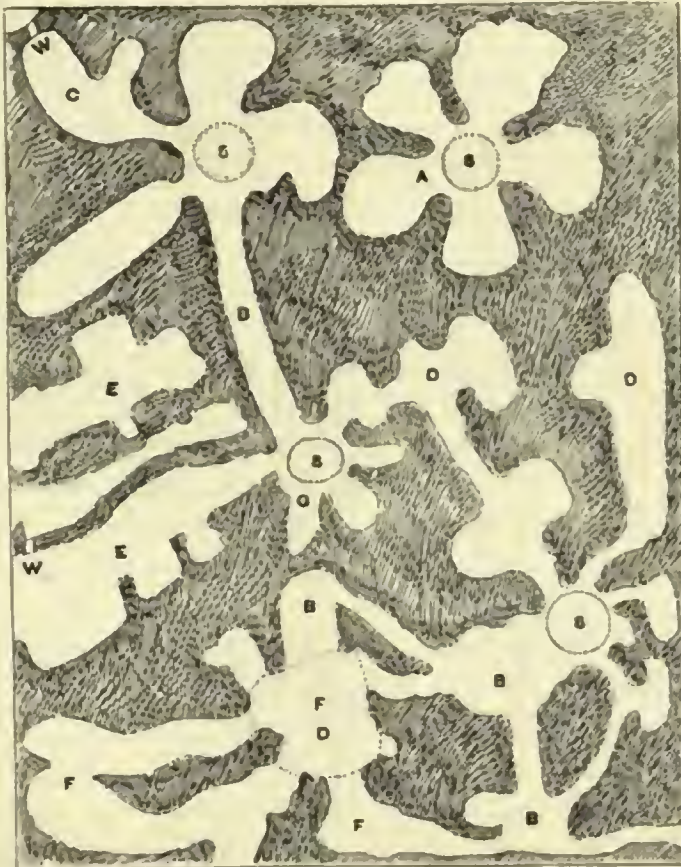
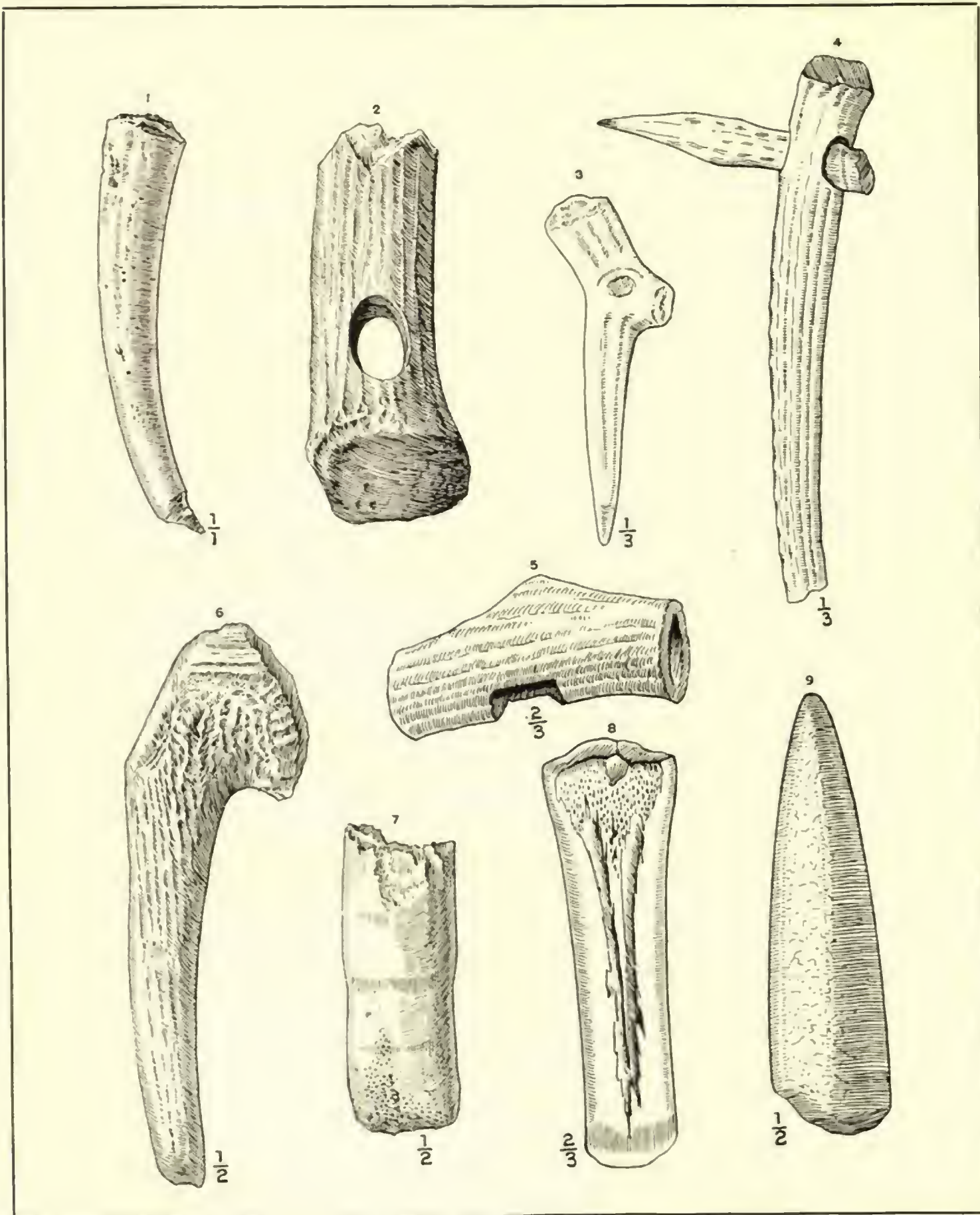


Fig. 13. Ground plan of neolithic mines.
 A = Puits préhistoriques de Nointel (16). B = Grimes Graves (13). C, D, E, F = Cissbury Camp (17, 18, and 19). G = Puits de Valennes (15). S = shaft. W = window.

the shaft, worn smooth by friction in the hands of the miner. In the galleries and chambers other tools than the deer-horn pick were used to loosen the blocks of chalk, to dislodge the nodules of flint, to free them from the gangue, and to break them into smaller and more serviceable sizes, and even to dress them into rough-shaped implements before sending them up to the surface. Several of these tools, which were varied in form to suit the many purposes to which they were applied, are illustrated on plate XVII, while all were made from the antler of the red deer or animal bones except no. 9. No. 1 was made from a tine, and was used as a wedge and for loosening the layers of chalk and separating the blocks of flint from the bed. No. 4, made from part of the beam of an antler with a tine inserted transversely to form the pick, was used for driving the gallery in confined spaces and for picking out the nodules from the bed. No. 2 was a hammer used for driving in the tine wedges to loosen the blocks of chalk or flint, while no. 3 may have been used for levering them out; no. 5, from an antler, probably served as a haft for a flint-mining implement. No. 6 was used as a hammer for loosening the gangue from the nodules and for breaking them up. Nos. 7 and 8, made from the metacarpal bones of a horse, may have been employed as wedges for loosening the chalk or for fashioning flint implements. No. 9 is a remarkable tool. It is a stone hatchet of basalt found by the Rev. W. Greenwell in Grimes Graves, "and the marks of its cutting-edge were plentiful on the chalk sides of the gallery in which it was discovered" (13). A similar implement (a polished stone axe of andesite) has been found in the neolithic flint-mines at Mur du Barrez in France (32).

I have already referred to the method employed in opening up a neolithic mine by means of galleries or chambers radiating from, or connected with, a central chamber at the bottom of a shaft. The different workings were separated, as I have already pointed out, by walls of undisturbed chalk of irregular shape and varying thicknesses, with the object of sustaining the roof, and so preventing the collapse of the galleries, etc.; but the neolithic miner knew full well that such precautions might eventually not prove to be sufficient, and he was wont to make his mine still safer by filling up the galleries with chalk and débris brought from the neighbouring workings, just as a modern miner fills the "stopes" or working chambers with mine-rubble to-day (21, 13). The filling in many instances consisted largely of flint chips and of partially worked flint implements, proving that a certain amount of preparatory or fashioning work was done underground. Many used and discarded mining tools have been found intermingled with the fillings. The shafts were treated in the same way, although, in all probability, not altogether for the same reason. They were filled with rubble and débris extracted from the neighbouring shafts, often in the order in which they were extracted (21), a very practical and simple method of disposing



NEOLITHIC MINING IMPLEMENTS

Nos. 1, 6, 7. Cissbury, Sussex (17)
Nos. 5 & 8. Mesvin, Belgium (20)

Nos. 2, 3, 4. Nointel, Département de l'Oise, France (16)
No. 9. Grimes Graves, Norfolk (13)

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of the waste from other mines. Deer-horn picks showing signs of wear have often been found among the shaft fillings, which not infrequently comprise flint chips and wasters from the adjacent factory as well, also the bones of animals and pieces of broken pottery and other rubbish from the neighbouring mining settlement. I have endeavoured to show the normal character of the filling of a shaft in fig. 8, based, in this instance again, on the results of investigations carried out in different parts of Europe.

Another form of mine implement has been found in Britain, viz. the scapula of the *bos longifrons*, which was evidently used as a shovel for clearing away the chalk loosened from the galleries or for filling baskets with flint nodules or fragments. Some doubt has been expressed as to whether scapulae were employed for such purposes, but further and convincing proof of such usage has recently been afforded by the investigations carried out by Mr. H. St. George Gray at Avebury, where similar implements in association with deer-horn picks have been found at the bottom of the deep ditch that surrounded the monument.

Another tool of a special character has been discovered in the flint-mines at Champignolles (11) in France in association with deer-horn picks. It is in the form of a hatchet, being probably hafted, and would prove to be a very efficient tool for driving a gallery in the chalk.



Fig. 14. Flint-mining implements from Champignolles.¹

It is the middle object in fig. 14, while to the left is a flint pick, which would also in all probability be hafted, and on the right a pick to be used in the hand, the "asperities having been removed by hammering so that the elongated portion formed a (convenient) shaft or handle" (22). These picks were used for dressing down the sides of the shafts and galleries, as I have already pointed out, as well as for separating the flint nodules from the chalk or gangue. A similar hatchet was found at Grimes Graves, and is now in the British Museum.

The method employed by the neolithic miner for drawing the flint and "rock" to the surface has not been clearly determined. It is possible that in the wider pits or shafts which appear to have been the practice in Britain the "stuff" may have been thrown up from ledge to ledge, but this could not have been so in the case of narrow shafts, and there is no doubt that a cord made of

¹ From the collection of Dr. Baudon, Député de l'Oise, Beauvais, France.

fibre or grass, such as is used in Spain to-day, was employed for raising material from the bottom of the pits. Indeed, distinct traces of such usage have been discovered at Spiennes in Belgium (6), where an "enormous block of chalk", with two lateral grooves for the attachment of the cord, was found in the filling of a shaft.

Neither have the methods employed by the flint-miner for descending and ascending the shafts been satisfactorily demonstrated. It may be assumed that in the larger pits in Britain, and where there were stages, the miner would hoist himself from step to step by means of a rope; but this, again, could not have been the case in the deep and narrow shafts of the Continent. He could only, in such instances, have clambered up a rope or been hauled up to the surface.

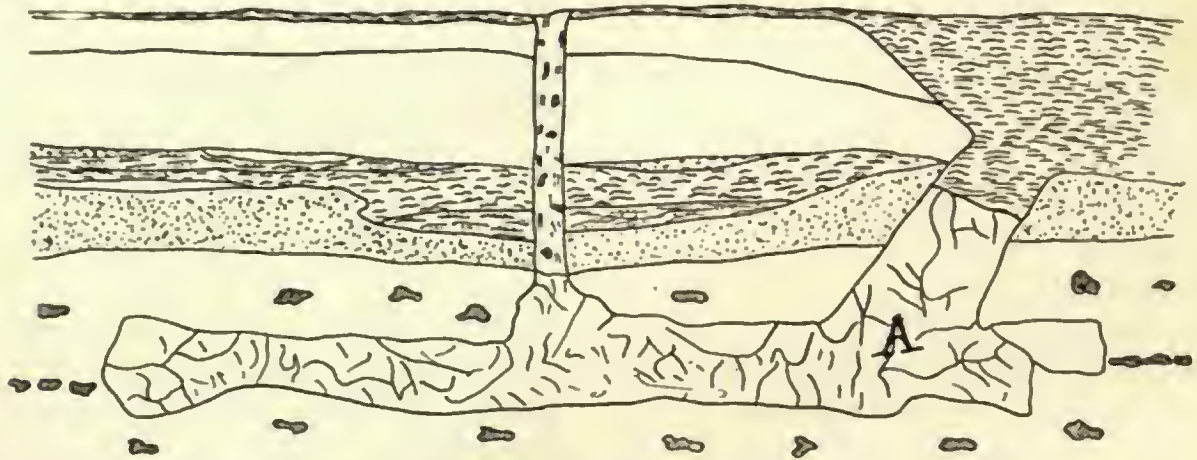


Fig. 15. Section of ancient mines at Spiennes.

Footholds on the sides of the shaft would have greatly aided the operation, and, indeed, have obviated the use of a rope; but they do not appear to have been observed in any instance that I am aware of. There was, however, another very simple means of ingress and egress which would, in all probability, be employed in some districts (namely, by means of inclined, as opposed to vertical shafts), such as those that have been found at Champignolles in the Département de l'Oise in France, and of which there is a well-known instance at Spiennes in Belgium. The above illustration (fig. 15), taken from the report of the Congrès international d'Anthropologie et d'Archéologie préhistoriques, 1868 (5), shows, to the right of the vertical shaft, a much wider approach to the mine, amounting almost to an inclined plane; and as many of the underground workings were connected, the miners would have had no difficulty in making their way to A and using the shaft for entering or leaving the mine.

The method employed in lighting the flint-mines has given rise to much controversy, and opinions have been expressed that artificial light was not employed, but this would only have been the case in exceptional instances where

the workings were restricted in extent and in close proximity to a very large shaft or pit.

The galleries and chambers were in most cases too far removed from the shafts and too extensive to admit of the penetration of the light of day through the opening of the shaft above, and some form of artificial illuminant must have been employed. It may have taken the form of resinous torches, as was the case in Spain in a more recent phase of mining with the deer-horn pick, as I will show later on; or of cups or lamps made of chalk, which were filled with grease and furnished with a wick. I know of no case where the remains of torches have been found in flint-mines, but it is otherwise with the lamp, and we owe it to that careful investigator and conscientious recorder of facts, Dr. Greenwell, that there is at any rate one well-authenticated instance of a neolithic lamp having been found in position. Four such lamps were discovered during his investigations at Grimes Graves, "one in a pit, and others in the galleries, in one case placed upon a ledge of chalk just in the proper position for throwing light upon the place being worked" (13). There is, moreover, another reason why artificial light must have been used in these often deep and extensive mines. As I have already mentioned, the shafts were sunk to the top of a bed of flints, and there the workings began. The miner worked the bed that was under his feet, or, to use a mining expression, in the "sole" of his level, and in some cases, as at Spiennes for instance, the bed has been found to be 50 centimetres (20 inches) deep (6). Care was necessary to remove the nodules properly, and this could not have been done in darkness or in semi-darkness.

The number and the close proximity of the shafts in a flint mining-field has often been a matter of surprise and wonder to investigators, but in this instance again the neolithic miner worked methodically and with a thorough knowledge of his trade; for numerous shafts, although representing a considerable amount of "dead-work", greatly facilitated the development of the mines by providing ventilation for the workings, by extending the field of underground operations, and by expediting the delivery of the production to surface. Even in much later periods the sinking of multiple shafts was one of the features of practical mining, and it may indeed be said to have been a common practice in Roman times, while, in our own days, miners have a tendency to multiply shafts where scientific practices do not prevail. There are indeed instances where they deliberately do so even to-day, as the following extract from the Rev. J.W. Hayes's very interesting monograph on Dene-holes (23, p. 64) will show. Mr. Hayes quotes Mr. Darwin's report, which is directly based upon Mr. Charles Dawson's study on "Ancient and Modern Dene-holes and their makers" published in the *Geographical Magazine* in 1898:

The whole of this area (Brightling in Sussex) is covered with countless thousands of pits. . . . The workmen who with their forefathers have been accustomed to this industry

(procuring limestone) perform the work with wonderful celerity. They sink a well 3 or 4 feet in diameter through blue and brown shales until limestone, 40 sometimes 50 or 60 feet from the surface, is reached. The cavity above the stone is then belled out, and four small arched lateral chambers are dug out at four equidistant points. . . . While the last pieces of stone are being removed from the pit, one of the men commences another shaft about 6 yards away . . . this way occupies less time (than mining), is less expensive, and the men work on the same general design because they know by experience that it is a safe one. Indeed, the whole operation of digging a well and getting out the stone is only a matter of a few days, and then they fill one pit with the *débris* of another.

The close analogy between the methods of mining as practised to-day by the searcher for limestone and those of the neolithic flint-miner of several millenniums ago is indeed remarkable.

I have thus far referred to the use of the deer-horn pick in mining operations on the Continent, where researches in the interesting field of neolithic mining have been pursued more extensively and actively than in England; but all the evidence forthcoming points to its having also been the principal implement employed in excavating shafts and driving galleries in the flint-mines of Britain. The best known neolithic flint-mines in England are those at Grimes Graves near Weeting in Norfolk and at Cissbury in Sussex; the former of which were investigated by Dr. Greenwell in 1869, and the latter by Mr. E. H. Willett, Col. Lane Fox, and others in 1873-7. A considerable number of deer-horn picks and other tools, similar to those which were in use on the Continent, were found in both places, Dr. Greenwell having discovered no less than seventy-nine of such picks in the restricted area which he investigated (13). There is, however, one feature which distinguishes the flint-mines in Britain from those in Gaul, viz. the greater dimensions of the shafts. At Cissbury the shaft cleared out by Mr. Willett measured nearly 19 feet at the mouth and $12\frac{1}{2}$ feet at a depth of 15 feet, while the shafts or pits at Grimes Graves are described as circular and varying in diameter from 20 to 65 feet. The pit opened was "rather under the medium size, being 28 feet (about 9 metres) in diameter at the mouth, and gradually narrowing to a width of 12 feet at the bottom, which is 39 feet below the surface" (13, p. 423). It is difficult to account for the size of the shafts in Britain. They would offer the advantage of better ventilation, and more light would reach the lower working through them, but, on the other hand, they represented a much larger amount of "dead-work" than the narrower shafts in Gaul, and the only logical inference to be made from them is that the art of mining in neolithic times was less advanced in this country than it was in many places on the other side of the Channel. Dr. Greenwell states, as the result of his careful observations, that (13, p. 426) "the principal instrument used both in sinking the shaft and in working the galleries was a pick made from

the antler of the red deer, numerous examples of which were found in the shaft at various depths and in the galleries". It was at the end of a gallery, 20 feet 8 inches from its mouth, that Dr. Greenwell found two picks in the position in which they had been left by the ancient flint-miners, in front of two hollows extending beyond the chalk face of the end of the gallery. Fig. 16 represents one of these very picks, which is not only interesting from its associations but also from the fact that it bears unmistakable evidence at the back of the burr of use as a hammer.

But although there was a marked difference between the methods of shaft-sinking in the neolithic flint-mines in Britain and in Gaul, there were remarkable points of similarity in other respects, and in none more so, perhaps, than in the provision of a small pit or trench in the chalk at the bottom of the shaft, such as has been observed at Cissbury and was the rule at Champignolles in France. It is difficult to conjecture its use, as Mr. Willett points out (14), but it is possible that it may have served to collect the rain water which must have found its way into the shaft, especially when the workings were situated on the side of a declivity.

I have so far dealt with the use of the deer-horn pick in connexion with neolithic flint-mining, and in no instance has any object of bronze been found in the working or fillings of galleries or shafts. That the mines were in exploitation during different phases of the neolithic period is probable, as I have already pointed out when comparing the workings at Spiennes and at Obourg in Belgium, and as M. Rutot so ably demonstrates (22) in his study of the same districts, when he compares the fauna found in the workings, and shows that those at Obourg were "wild" (*une faune sauvage*), while those at Spiennes were domestic (*des espèces domestiques*), and as Mr. Willett considers to have been the case in the Cissbury and Grimes Graves mines (14). But be that as it may, the mines and the picks were undoubtedly of the Stone Age.

The employment of the deer-horn pick was, however, not confined to mining for flint. It was also employed, as I will show, in prehistoric calcite, copper, salt, and tin mining.

It has been found at Furfooz in the province of Namur in Belgium in old workings from which calcite had been obtained for the purpose, principally, of



Fig. 16. Deer-horn pick from Grimes Graves.

mixing it with the clay employed in the neighbourhood in the manufacture of pottery. Two parallel veins of calcium carbonate were worked by the open-cast method, and from the calcite extracted the most suitable portions were selected and then broken up by hammering with a deer-horn implement, or with stone

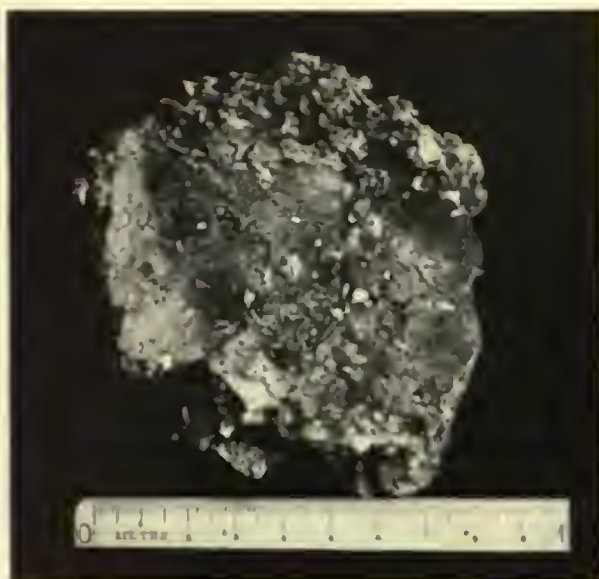


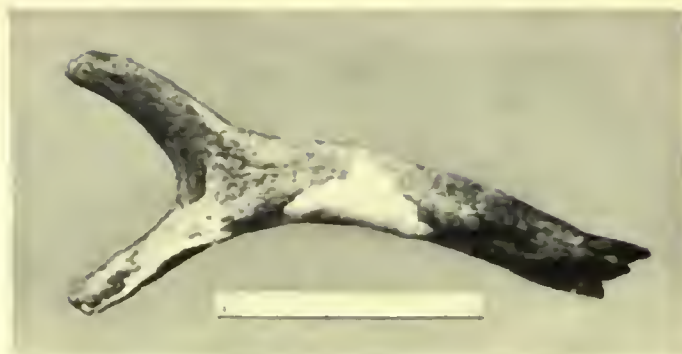
Fig. 17. Pottery showing fragments of calcite.

mauls, to the size required for admixture with the clay. The pottery (fig. 17) was very coarse in texture and simple in form. In some of the fragments found, there were the distinct impressions of grains of barley. The tools which were found associated with the deer-horn pick in flint-mining, such as the rake, the hammer, and the wedge, have also been found at Furfooz, and are illustrated on plate XVIII. No. 1 is a pick, no. 2 a rake, and nos. 3 and 4 show distinct traces of having been used as mallets for breaking up the lumps of calcite; while no. 6 was employed as a wedge or gad for levering them out of the vein.

The example of the use of the deer-horn pick in connexion with mining for tin occurs in our own country, where a fine and interesting specimen was discovered, about 100 years ago, at Carnon in Cornwall, some "30 or 40 feet below the surface, lying on the tin-bearing stratum (of the stream tin) associated with human skulls, deer horns, and a wooden shovel". The "deer horns" were probably the usual gads or wedges, and the association of the pick with those implements would point to their having been employed in mining operations, although the presence of human skulls is somewhat difficult to explain. The pick differs in construction from any which I have hitherto described, since it is composed of two portions instead of being all of a piece as in all other cases. The beam, which apparently formed part of a shed antler, was stripped of all its tines and then perforated at the base just above the burr, and through the perforation a tine or small antler was inserted and probably fixed in place by a cord, thus forming, with its haft and blade, a true pick as we understand the implement in our days. Mr. R. N. Worth (34), who describes this pick, attributes the [tin] mining operation in Cornwall to the earliest days of the European bronze period, but it is quite possible that this tool may have been employed after the neolithic and during the bronze period. A mining tool constructed on similar lines, which was found at Nointel in France, is illustrated on plate XVII, no. 4.



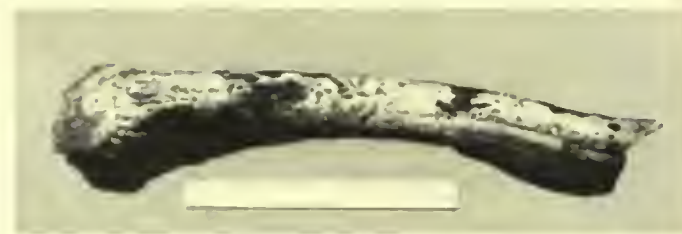
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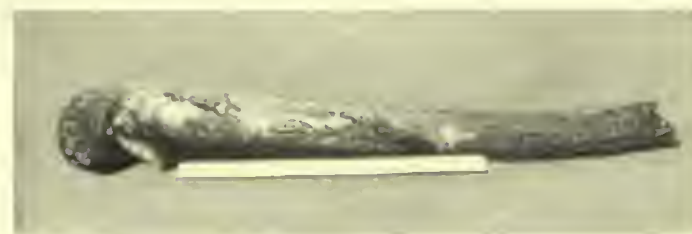
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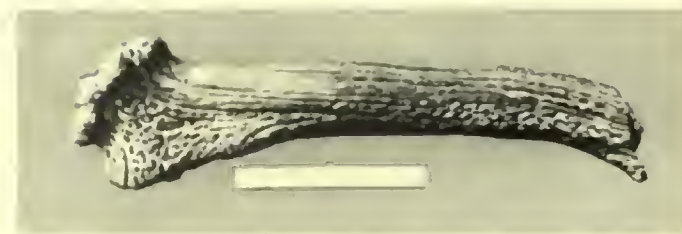
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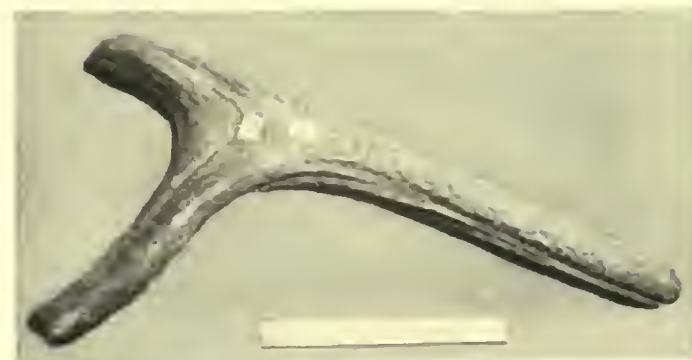
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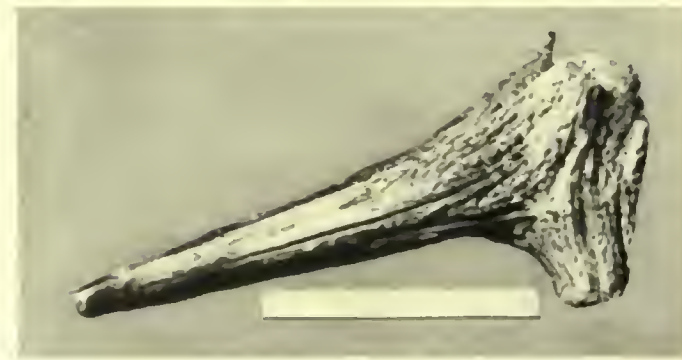
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DEER-HORN TOOLS FROM MINES IN BELGIUM, SPAIN, AND SALZBERG NEAR HALLSTATT

Published by the Society of Antiquaries of London, 1910

The next phase of the use of the deer-horn pick came to light in connexion with very early and undoubtedly prehistoric copper (or possibly cobalt) mining in northern Spain. A fortunate though logical deduction from a casually observed freak of nature led to the discovery of an ancient mine in September, 1888 (24). Mr. Van Straalen, the manager of the neighbouring mines of Mieres, in the Aramo range of mountains in the province of Oviedo in the north of Spain, noticing that the leaves of a tree were violently agitated on a day when there was no wind or movement of the atmosphere, investigated the cause, and found it in a current of air which proceeded from an "Old man's" shaft; and further research led to the discovery of most interesting old workings, consisting of a number of small vertical shafts, leading to a series of galleries of considerable extent in which pillars had been left, as in true mining practice, to support the roof. The several veins of copper ore, in a dolomite formation, had been followed by the prehistoric miner, who left on the walls of his galleries and in the filling of his workings unmistakable evidence of the implements he used and the methods he employed in mining the precious metal. His attention was, in all probability, first attracted by native copper, or by rich nodules of black oxide of copper (containing perhaps 72 per cent. of metal) in the outcrop of the vein, which he followed down and worked in a miner-like manner. He was not, however, always fortunate in his precautions for preventing accidents, and it occurred at the Aramo copper-mines in Spain, as in the neolithic flint-mines at Obourg in Belgium, that a fall of roof or a "run-in" of the levels buried the miner with his tools, who thus involuntarily provided unquestionable evidence of the implements he used in his trade. One of the most important of these was, again, the deer-horn pick, of which one is illustrated on plate XVIII, no. 5. The deer-horn hoe, or rake, was also employed (plate XVIII, no. 9), while the beam with the burr of the stag's antler (plate XVIII, no. 7) was used as a hammer for breaking up the mineral underground. But besides the deer-horn tools the prehistoric Spanish miner, like his neolithic congener in other parts of Europe, used stone implements for driving his galleries, tines of the deer for dislodging the mineral from the gangue or vein, and stone hammers or mauls for breaking it up. The galleries were very narrow, and showed by their walls, polished by the frequent passage of the miners, that they were long in use. The ore, which was broken or pounded into small fragments, was taken to the surface in wooden hods to which a leather ring or handle was fixed to allow of their being dragged along the ground in very narrow places. In many cases the workings were filled with sterile rock, just as in the case of the neolithic mine, to prevent their caving in. The question of lighting the workings can, in the case of the Aramo mines, be definitely determined. It took the form of fire-sticks or torches of resinous wood which were inserted into lumps of clay fixed to the sides of the gallery, a method which, as I will show,

was also employed in the prehistoric salt-mines near Salzberg, where, again, the deer horn was used.

Another prehistoric copper-mine, now known as the Milagro mine, was discovered at Cangas de Onis, not very far from Mieres, where similar methods and similar implements were employed. Indeed, the deer-horn pick, the axe, and the hammer or mallet have been actually found in this mine.

There were distinct evidences in the case of both these mines of the treatment of the ore on the spot and of its reduction to some form of metallic copper; but as the Romans also discovered the prehistoric workings and extensively developed the Alamo mine, care is necessary in distinguishing between the results of their smelting operations and those of their predecessors. In the instance of



Fig. 18. Copper or bronze axe from Milagro mine, Spain

the Milagro mine, however, the case is different, as copper (or bronze) axes of an early form (fig. 18) have actually been found in the prehistoric workings. This fact points to the exploitation of the mine in the early Bronze Age, but while the employment of metal was still rare and unusual; and I offer the opinion that the deduction to be drawn from the extensive use of the deer-horn pick and other horn and stone implements in

both mines, is that they were originally worked by miners who sought the copper, perhaps in its native form, for the purposes of trade or barter, and that they only subsequently learned to make direct use of it for their own purposes. I think, moreover, the deduction is fair that the workings at Alamo, where no metal objects or traces of them were found, date from an earlier period of prehistoric mining than those at Cangas de Onis whence the metal axes came.

I will now turn to a central European district and to a later period, in all probability, for still further evidence of the use of the deer-horn pick in prehistoric mining. In this case salt was the object of the venture, and very extensive workings for obtaining it were carried out in very early times at Salzberg near Hallstatt in the Austrian Tyrol. The tools and apparatus utilized were naturally of a higher order than those discovered in the sites to which I have already referred, and point to a much advanced stage in the art of mining and in general culture; but the deer-horn pick remained, nevertheless, one of the principal tools employed. Part of the beam and burr of an antler pick and the head of another pick are illustrated on plate XVIII, nos. 8 and 9. They were found in the Kaiser Joseph Stollen (27, p. 125) together with other implements, among which were a stone gad or wedge, and a portion of a copper or bronze pick; whence it is evident that in the case of the Salzberg mines in Austria, as in that of the Cangas

de Onis mines in Spain, metal tools were employed contemporaneously with implements of deer horn and stone.

The type of metal pick is particularly interesting. It is pyramidal in form, and consists of an elongated socket (fig. 19), which was fixed at right angles to a wooden haft by means of a wedge-shaped cross-piece of wood, with the result that it formed an implement (fig. 20) closely resembling in form and purport the deer-horn pick from which it was probably derived. The stone gad was of similar form.

Bronze axes, spades, and other utensils of wood, as well as sacks of hide for transporting the salt and the remains of clothing, were found in the mines in association with deer-horn tools.



Fig. 19. Metal pick.



Fig. 20. Hafted metal pick.

The salt-mines were approached by shafts, and as the prehistoric workings extend in depth to 600 feet in places (25, p. 41 ; 27, p. 125) it is obvious that artificial light must have been

employed, and in this instance, as in that of the Alamo mines in Spain, torches of resinous wood were used, the remnants of which are found in great numbers in the ancient workings (fig. 21).

But the deer-horn pick was not used exclusively in mining operations in prehistoric times. It was also employed in agriculture (33), and it was probably in general use as an implement for digging and excavating. A large number have been found (in 1908) at the bottom of the deep fosse at Avebury (28). Indeed, we find the pick still in use in Romano-British times, examples having been discovered at Woodyates (29) and at Silchester (fig. 1). The latest discoveries are those at Maumbury Rings near Dorchester, where the excavations carried out by

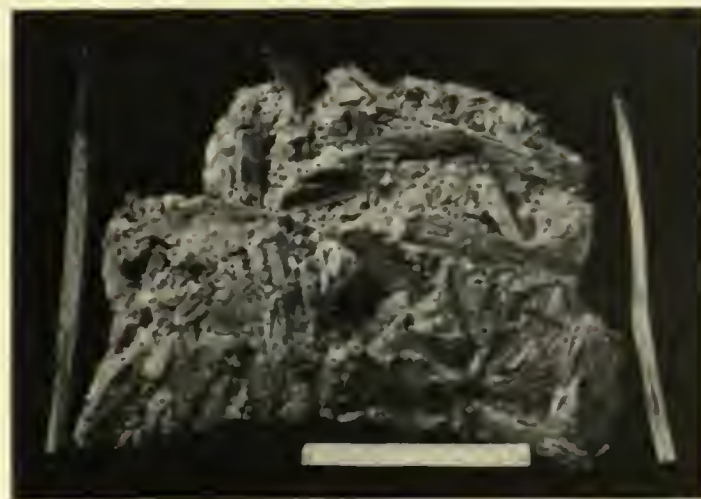


Fig. 21. Fragments of torches found at Salzberg.

Mr. H. St. George Gray in 1908, in the Roman amphitheatre, led to the uncovering and the opening up of a prehistoric shaft over which the Romans had heaped their embankment (31). The shaft, which appears to correspond in its main features with the shafts at Cissbury and at Grimes Graves, was cleared out to a depth of 30 feet, and a number of deer-horn picks, in good preservation and showing signs of wear, were discovered in the filling. It is to be hoped that further investigations will be prosecuted at Maumbury Rings and that the object of the shaft will be finally ascertained.

I feel convinced that there must be many more examples of ancient mining in this country,¹ where this interesting and instructive branch of archaeological research has hitherto attracted but little attention. Prehistoric mines are, however, well worthy of investigation as good evidence of what the intelligence and ingenuity of man could accomplish by the aid of a simple tool provided by Nature, picked up in a forest, and adapted to many purposes by the severance of some of its superfluous branches, which, in their turn, were made use of in conjunction with the principal implement in mining for flint and metals.

And, in conclusion, I must express my indebtedness to the authorities of the British Museum, to our President and Mr. Reginald A. Smith; to Baron A. de Loë, of the Musée royal du Cinquantenaire of Brussels, and to M. A. Rutot of the Musée royal d'Histoire naturelle in that town, the well-known authority on matters of prehistoric research, as well as to H. Kustos Joseph Szombathy of the Naturhistorisches Hofmuseum, Vienna, for much valuable advice and assistance in gathering together the materials which have served as a ground-work to this paper and for permission to photograph and illustrate many of the implements comprised in the valuable collections committed to their charge.

¹ Since this paper was written Mr. R. Garraway Rice, a Fellow of our Society, has called my attention to quite recent discoveries of neolithic flint-mines at West Stoke, near Chichester, where a deer-horn pick has been found.

BIBLIOGRAPHY

1. *Bulletin de la Société d'Anthropologie de Bruxelles*, tome v, quatrième fascicule, 1886-7, pp. 298 and 346.
2. *Bulletin de la Société d'Anthropologie de Bruxelles*, tome xxiv, 1905. Découverte d'un nouveau squelette de mineur préhistorique à Strépy, par A. Rutot.
3. *La Nature*, no. 1733, 11 août 1906. Mineurs préhistoriques, par A. Rutot.
4. C. Malaise, *Sur les Silex ouverts de Spiennes* (Bruxelles, 1866). [*Bulletins de l'Académie Royale de Belgique*, 2^{me} série, tome xxi, no. 2.]
5. *Congrès International d'Anthropologie et d'Archéologie préhistoriques*, 6^{me} session, Bruxelles, 1872, p. 279, iv. L'Homme pendant l'âge de la pierre polie. Sur l'âge de la pierre polie et les exploitations préhistoriques de Silex dans la Province de Hainaut, par MM. F. L. Cornet et A. Briart.
6. Ateliers et Puits d'extraction de Silex en Belgique, etc. Notice sur des Fouilles pratiquées récemment sur l'emplacement d'un vaste Atelier Néolithique de Spiennes (Hainaut), par MM. le Baron A. de Loë et E. de Munck. Extrait du *Congrès international d'Anthropologie et d'Archéologie préhistoriques*. (X^{me} Session, Paris, 1889.) Paris, Leroux, 1892.
7. *Journal of the Anthropological Institute*, vol. v, no. 3, January, 1876. Col. A. Lane Fox. Excavations at Cissbury Camp, Sussex. (Spiennes, pp. 361, 362, and 363.)
8. *Mémoire de la Société des Sciences, des Arts et des Lettres du Hainaut*, 3^e série, t. ii, 1867. A. Houzeau de Lehaie, F. Cornet et A. Briart, Premières découvertes d'anciens travaux d'exploitation de Silex faites à Spiennes.
9. *Bulletin de l'Académie Royale de Belgique*. Report of MM. Cornet et Briart, read 1st Feb. 1868.
10. Les Ateliers préhistoriques de Spiennes : communication faite à la Société d'Anthropologie de Bruxelles dans la Séance du 29 avril 1889, par L. de Pauw et E. Van Overloop.
11. Des Puits d'extraction de Silex de Champignolles, Commune de Flavacourt (Oise), et des Outils destinés à l'extraire à l'Époque néolithique, par le Docteur Th. Baudon, *Quatrième Congrès préhistorique de France*, Session de Chambéry, 1908, pp. 304-16.
12. *Dns Glas im Allertnne*, von Anton Kisa, W. Hiersemann, 1908, Band i, p. 113, Abb. 56.
13. *Journal of the Ethnological Society*, new series, vol. ii, 1869-70, p. 419, xxxix. On the opening of Grimes Graves in Norfolk. By the Rev. William Greenwell, M.A., F.S.A. (p. 427, two picks found.)
14. *Archæologia*, vol. xlv, 1890, pl. xxvii. v.
15. Les Puits préhistoriques à Silex de Valennes (Oise), par L. Thiot et G. Stalin. Communication faite à la Société Académique de l'Oise dans la Séance du 17 février 1902. Beauvais, Imprimerie Eug. Boucher, 49, rue Sadi Carnot.
16. Puits préhistoriques de Nointel, par l'Abbé Renet. *Mémoires de la Société Académique de l'Oise*, Année 1884.
17. *Journal of the Anthropological Institute*, vol. v, no. 3, January, 1876, p. 357. Col. A. Lane Fox. Excavations in Cissbury Camp (1875).
18. *Ibid.* vol. vi, 1877, p. 431. Report on some further discoveries at Cissbury, by J. Park Harrison, M.A.
19. *Ibid.* vol. vii, 1878, p. 412. Additional discoveries at Cissbury, by J. Park Harrison, M.A. (pl. x. Plan of Excavations made in 1876 and 1878.)
20. *Exposition préhistorique organisée à Bruxelles*, etc. Notice, Catalogue par le Baron Alf. de Loë, 1892.
21. Découverte et Fouille de Puits et de Galeries préhistoriques d'extraction de Silex à Avennes, par le Baron Alfred de Loë, Bruxelles, 1894.

22. *Sur l'âge des Squelettes de Mineurs néolithiques d'Obourg et de Strépy*, par A. Rutot, Bruxelles, 1907.
23. *The Journal of the Anthropological Institute*, vol. xxxix, January-June, 1909. Rev. J. W. Hayes. Dene-holes and other Chalk Excavations. Their Origin and Uses.
24. *Revista Minera, Metalúrgica y de Ingeniería*, Madrid, 1893. Año xlv. Números 1463 and 1466, pp. 333-7 and 361-5.
25. *Die Mineralbenutzung in vor- und frühgeschichtlicher Zeit*, von E. Treptow. Verlag von Craz & Gerlach, Freiberg in Sachsen, 1901, pp. 40-2.
26. *Geschichte der Bergbau- und Hütten Technik*, von Dr. Ing. Fr. Freise. Erster Band: Das Altertum, Berlin. Verlag von Julius Springer, 1908, pp. 40-1.
27. *Das Grubfeld von Hullstall in Oberösterreich und dessen Alterthümer*, von Dr. Ed. Freih. v. Sacken. Wilhelm Braunnüller, Wien, 1868, pp. 124-7.
28. H. St. George Gray. *Report British Association, Dublin*, vol. 1908, pp. 401-13, and *Report Winnipeg*, 1909.
29. *Excavations at Bokerly Dyke and Wausdyke*, 1888-91. Lieut-General Pitt-Rivers. Vol. iii, p. 135.
30. *Archæologia*, lxi. 214.
31. Interim Report on the Excavations at Maumbury Rings, Dorchester, 1908. By Harold St. George Gray. From the *Proceedings of the Dorset Natural History and Antiquarian Field Club*, vol. xxix, 1908.
32. *Matériaux pour l'Histoire de l'Homme*, 21^{me} volume, tome iv, Janvier 1887. Marcelin Boule.
33. *British Barrowes*, Greenwell and Rolleston. Clarendon Press, Oxford, 1877, p. 231, &c.
34. *Archæological Journal*, vol. xxxi, 1874. Ancient Mining Implements in Cornwall, by R. N. Worth, p. 54.

VII. *The Present Condition of the Ancient Architectural Monuments of Cyprus.* 1910.
By GEO. JEFFERY, Esq., Curator of Ancient Monuments.

Read 17th March, 1910.

THE desire of the writer is to afford some general information on the present condition, and presumable future, of these most interesting remains, and to enlist as far as possible the sympathies of all students of art and history in the preservation of mediaeval monuments, which, from circumstances of geographical position and present ownership, are comparatively unknown and uncared for.

M. Camille Enlart, Director of the Museum of Comparative Sculpture, Paris, was the first architectural authority of the present time to draw attention in a scientific manner to the great importance of the Cypriote series of monuments in the history of art. His great work on the analogies between French architectural detail in Cyprus and in France is fortunately well known in England, and easily available for reference. The Byzantine churches and monasteries have not yet been studied in detail, although their history is in all probability almost equally interesting.

The Hellenic Society of London, and the different archaeological institutions specially devoted to classical study, have been engaged all through the latter part of the nineteenth century on the problems of Cypriote philology and prehistoric archaeology. But architectural monuments hardly come within the scope of such studies as far as Cyprus is concerned. No ancient temple or other public monument survives in any part of the island. The bare outline of the Papho shrine, or a few prostrate columns buried in the sands of Salamis, are the only evidences of Greek or Roman culture beyond the innumerable sepulchres with which the whole island is literally honeycombed. A few of these tombs may perhaps be considered to rank as architectural—the so-called "Royal" Tombs, Tamassos, for example—but as a rule they are mere holes excavated in rock or earth as the case may be, and only interesting for the objects found within them, objects which now repose in the museums of New York, London, or Berlin.

The series of architectural monuments in the island begins with the latter part of the Byzantine period of art. The domical method of construction introduced in the times of the decaying Roman Empire and generally associated with early Christianity presents itself in all the ancient monuments which survive

as buildings, but such fragments of detail and ornament as give a clue to date are usually not older than the Middle Ages.

During the sixties of last century MM. Rey and de Vogüé visited the island, and the former gives sketch-plans and descriptions of some of the mediaeval castles of Cyprus in his *Architecture militaire des Croisés*. In 1881 the R. I. B. A. published a meagre account of the architectural antiquities by Messrs. I'anson and Vacher, and in 1899 appeared the magnificent *L'Art Gothique et de la Renaissance en Chypre* by M. Camille Enlart (published by the French Ministry of Public Instruction).

NOTE BY MR. NORMAN.

It may be well to add here a few historical notes by way of explanation. Cyprus came into the possession of Ptolemy I in 306 B.C., and was ruled as a dependency of Egypt till 57 B.C., when it became part of the Roman Empire.

On the decay of the Empire it was invaded by the Arabs, and though nominally under the control of the Greek Emperors of Byzantium, was governed by semi-independent princes.

In 1191 Richard Cœur de Lion took the island, in revenge for an insult to his fleet, and sold it to the Templars, who in 1192 passed it on to Guy de Lusignan, by right of his wife King of Jerusalem. The Lusignan dynasty held Cyprus till 1489, the last of them, Jacques III, marrying Caterina Cornaro, and leaving her ruler at his death. The Venetian Republic, however, forced Caterina to abdicate, and remained masters of Cyprus till it was taken from them in 1571 by the Turks under Selim II. Since 1878 the island has been ruled by England under an agreement with the Sultan.

P. N.

It is not necessary to speak at length of the monuments of the Prehistoric and Classic periods. The remarkable prehistoric tomb at Larnaca, known as the Phaneromeni, and now converted into a shrine and place of pilgrimage, has been much disfigured and mutilated in the process. The Tamassos tombs, excavated by the Berlin Museum about 1894, are enclosed with iron gates and well guarded, and a tomb of the classic period at Larnaca is under Government protection, after purchase. Another at the same place, though scheduled as an ancient monument, has been nearly destroyed by the owner in an attempt to extract the sarcophagi.

Tomb-rifling is a common occupation of the Cypriote peasant, though the cemeteries are now guarded by police, and the "Antiquities Law" of 1905 forbids exportation of ancient objects without a permit. Probably the most effective check would be the establishment of small district committees, after the fashion of the Italian *Uffizio Regionale*, in each of the six districts, for the general supervision of such matters.

The "Prison of St. Katherine" at Salamis, probably a Roman tomb, and the surrounding necropolis have been gazetted as ancient monuments, and are efficiently protected, and the same may be said of the sites of the Papho temples (Limassol district), and of Lambousa and the necropolis of Sandoukopetra (Kyrenia district).

BYZANTINE CHURCHES AND MONASTERIES.

These most interesting features of the island are entirely within the control and guardianship of the local authorities of the Orthodox Church of Cyprus. The churches are usually the property of the village church committee, whose proceedings are controlled to a nominal extent by the bishop of the diocese. The monastic property appears to belong entirely to the bishops of the different sees in which it is situated, with the exception of the larger monasteries, which still enjoy an independent status.

It is unfortunately the fact that probably no people in the world, at least the civilized world, have less of the sentiment which conduces to the preservation of historical memorials than the *modern Byzantines*. The average peasant of Cyprus, possibly a member of some local church committee, seems incapable of appreciating this sentiment as applied to the little Byzantine village church wherein his forefathers may have worshipped for countless generations. Hardly any European peasant of average respectability and intelligence but would confess to a certain interest and regard for the memorials of his forefathers, national or private. But to the Levantine Christian, who has but little ground for patriotism, and scanty conceptions of family descent, the village church is a mere utilitarian storehouse for more or less miraculous icons, about which nothing of a human interest seems to linger. As a consequence of this want of all sentiment in such matters, the ancient Byzantine churches, venerable in appearance but generally small in size, have been destroyed wholesale all over the island, and especially during these latter years of peace and plenty under the British occupation.

The few remaining Byzantine churches must be sought in out of the way places, such as the monasteries of Antiphonitissa and Akhieropiëtos, Kyrenia district; Santa Croce and Kiti, Larnaca district; the numerous ruins of the Karpars peninsula; and the monasteries of Asinon and Kalapoyotis, Nicosia district. Small Byzantine churches, disused and ruined, may be found all over the island, marking the sites of ancient villages abandoned centuries ago in obedience to the migratory habits of the natives. Few village churches in Cypriote villages of the present day appear to be of older origin than the period of the Lusignans, and the majority are not so old as the Venetian occupation.

MEDIAEVAL GOTHIC ARCHITECTURE.

1. *The Ecclesiastical Monuments of the Mediaeval Kingdom of the Lusignans.*

An historical value, second to none, attaches to the remarkable series of churches and castles still surviving in Cyprus. These monuments have been exhaustively described and illustrated in M. Enlart's great work already referred to, which has rendered all the more important monuments of the period familiar to architectural students. Since M. Enlart wrote his book the present writer has been appointed Curator of Ancient Monuments, and amongst the works which he has carried out in that capacity may be mentioned the following: (1) The formation of a small *mediaeval* museum in a disused church at Famagusta to contain the precious fragments (alas! much mutilated) of sculpture and architectural detail, which have been found from time to time in Famagusta. Many of these fragments are illustrated in *L'Art Gothique*. (2) The enclosure of seven of the ancient churches of Famagusta with iron gates, with the necessary repairs to the lower part of their walls, where stone had been torn out by the villagers in former years. (3) The repair of the cathedral church (now a mosque) of Famagusta at the expense of the Mohammedan Evquaf. (4) The enclosure of the royal château and castle of St. Hilarion, Kyrenia district. This has been effected by repairing the walls with masonry where necessary, and placing an iron gate at the entrance. Part of the latter property being now cultivated as forest land, it has been found possible to arrange for a forest-guard's hut to be provided within the enceinte. This guardian will serve as caretaker for the castle ruins.

The very necessary repairs to the Great Mosque (cathedral church) of Famagusta were begun during the past summer of 1908. The nave roof, clerestory, and upper part of the western towers were placed in a condition of thorough repair. The delegates of the Evquaf, to whom the principal monuments of the Middle Ages belong, are anxious to undertake all necessary work of conservation and support, to be carried out under the supervision of the Curator of Ancient Monuments. It is proposed to continue this very necessary work during the coming winter, including certain very important works of preservation at the sides of the building.

The magnificent ruin of Bellapaise is certainly the most important mediaeval monument in the island after the two Latin cathedrals. In general style it somewhat resembles Spanish or Provençal work, but the visitor is impressed above everything by the fact of its being a vast monument of the Middle Ages, like one of our ruined English abbeys, untouched by a Renaissance or later character. Long before the Turkish occupation the monastery had fallen into decay as an institution, and the buildings were doubtless passing into an uncared-

for condition. The abbot's house seems to have been pulled down long ago, probably by the villagers for the purpose of building the modern village which sprang up in the place of the old monastic corporation. This latter would appear to have survived until the end of the Venetian occupation, but in a very degraded condition. At some period, of which no record remains, the range of buildings, comprising dormitory with chapter-house and "commons" underneath, has been completely ruined by the fall of the vaulting in both stories. In spite of this disaster many interesting details of fourteenth-century carving remain in the walls, and the arrangements of the dormitory are traceable by the windows, wall cupboards, etc. which survive. The staircase from the dormitory down to the church is also well preserved. As a ruin all this portion is in good condition, and should be preserved in its present untouched state.

The refectory is a stupendous example of a vaulted hall, famed even in the Middle Ages for its remarkable proportions. It still stands intact, although its masonry is in places much decayed. Some slight appearances of opening in the magnificent vault (more than thirty feet span) suggest the advisability of strengthening the construction by the insertion of iron tie-rods across its width, and the building of a strong buttress against the west wall. This latter is necessitated by an evident tendency towards movement of the west wall, owing to the removal of the abbot's house; at this end of the hall there is a serious crack in side walls and vault which, although ancient, must be prevented from any further development. The ornamental details of the architecture are fortunately not sufficiently defaced to prevent a very complete and satisfactory impression of the general design.

The great refectory and the other ruins of Bellapaise are now in the custody of the village church committee of the place. The ancient church is used as the district church, and consequently kept in repair for that purpose. The church committee appears to be aware of the historic value of the monument, and desirous of seeing it preserved as a show place. The committee is disposed to accept the assistance of the Government in providing against the further ruin of the buildings.

2. *Mediaeval Castles.*

The Lusignan castles of Cyprus have a very imposing character from the positions which they occupy on mountain tops or as forming parts of the later fortifications of the Venetian period. From this circumstance they are also very well preserved in their ruined condition, a condition due more to human violence than to the ravage of time. The mountain castles with the royal château of Hilarion were dismantled and partly blown up by the Venetian Government at the end of the fifteenth century, since which time they have remained absolutely

abandoned. The fourteenth-century fortresses of Famagusta and Limassol, somewhat mutilated, are still to be traced within the earthwork additions of the Venetians. The least preserved of the mediaeval strongholds is the fortress of Kyrenia, which has suffered much from alterations at different times and from its present use as a convict prison.

In consequence of all the mediaeval castles, with the exception of Colossi, being Government property, their preservation is of course secured. The castle of Colossi, formerly the commandery of St. John, is private property, and at the present moment offered for sale together with the large estate of which it forms part. It is remarkably preserved, and has been used, time out of mind, as a storehouse and residence. The great mediaeval barn, now used as a stable, is in a more ruinous condition. It is most desirable that this ancient cradle of the Order of St. John should be preserved in its entirety, and saved from any commercial use which might involve its more or less complete destruction. A very good photograph of the place occurs in Rider Haggard's *Winter Pilgrimage*. There are no less than five shields of arms of Grand Masters of the fifteenth century on different parts of the premises, in addition to the usual complimentary shield of the Lusignan arms.

3. *Domestic buildings.*

Until within the past few years the remains of domestic architecture of the Middle Ages might frequently be discerned amongst the mud hovels of Nicosia, and the other important towns of the island. The rapid transformations undergone by whole towns under the influence of the British occupation have swept away many of these relics of a particularly interesting type of art. A remarkable house front of the fourteenth century in the cathedral square of Nicosia was destroyed in 1904 for the purpose of enlarging a compound for animals, and many of the similar houses which even now survive are perhaps doomed to the same fate. The interesting little Venetian house near the cathedral church of Nicosia, which has often been sketched and photographed, is fortunately Government property.

The domestic building of lowland country villages in Cyprus is of no very great importance. The architectural features of doorways and cloistered courts which sometimes occur are as a rule of very modest pretensions, and very few examples of a date before the eighteenth century are now to be found in the island.

In the mountain region of Troodos, amongst the pine forests and orchards of a kind unknown elsewhere in the Levant, may be found ancient houses of timber construction of the most interesting description. Some of these are of a very considerable antiquity, and they are often covered with a profusion of elabo-

rate wood-carving very suggestive of English Jacobean work. In these mountain districts, where the Turk and Mohammedan have hardly penetrated, the villages remind the visitor a great deal of Switzerland; the houses are built of stone and wood instead of mud, and roofed with tiles, and the village churches—there are no mosques—give a homely look to the picturesque hamlets.

THE VENETIAN FORTRESSES, INCLUDING THEIR CIVIC ARCHITECTURE.

The Venetian supremacy in the Levant was distinctly military in character. Venetian commerce and colonial enterprise were carried on under the guns of immense fortresses, and with the vigilant surveillance of the famous Venetian galleys. When these military elements of her commerce ceased to be maintained in an efficient manner, the comparatively few European colonists claiming to represent Venice in the Levant were easily swept away by the natives of the different countries where they had settled.

At the present day it is said that not a single genuine Italian is to be found in Cyprus; even during the sixteenth century it is perhaps doubtful if many colonists, in the ordinary sense of that word, could have been found in the island. As a consequence the Venetians are only represented by the purely military monuments of the Famagusta enceinte, the Nicosia earthwork, and the additions to Kyrenia castle and Limassol fort. A pretty little watch-tower of quite an ornamental character was also built on the cape of Kiti as a protection to the roadstead of Larnaca, its doorway decorated with the usual Venetian shields of arms and the Lion of St. Mark.

These monuments of the Venetian Republic suffered very much, as a matter of course, during the Turkish invasion. After the cessation of hostilities the damage done to the fortifications seems to have been carefully repaired, and at the present day it is difficult to realize the descriptions of the famous siege of Famagusta, seeing the very perfect condition of its walls and defences. The earthwork enceinte of Nicosia was incomplete when invested by the Turks in 1570. The curtain and bastions were evidently much damaged by the bombardment in their unfinished condition; the Turks repaired and completed the work after taking the city, and in so doing they appear to have added an immense sheathing of stone to the scarped faces of the earth rampart. This sheathing of stone was evidently obtained from the ruined buildings of the Middle Ages, with which the city was filled after the bombardment.

The Venetian additions to the castle of Kyrenia are most important examples of the art of fortification of the period; they are also on an imposing scale, and very well preserved. The castle seems to have been but little altered by the Turkish invasion (its commandant surrendered it without a siege) and by sub-

sequent warfare, and its present use as a convict prison may possibly date from a remote period, when the galley slaves of the Middle Ages occupied the positions of the modern convicts.

The fort at Limassol, an ancient tower of the fourteenth century, was covered in the sixteenth century with an outer shell of masonry to protect its walls from the newly invented siege guns. At one side an extension with vaulted apartments, now used as prison cells, was added at the same time.

All these ancient fortifications, with the exception of the Nicosia enceinte, are still in a wonderful state of preservation, and call for nothing in the way of repair or alteration. The wall of Nicosia is now unfortunately dilapidated beyond repair.

The Venetian watch-tower of Kiti, although much ruined, is carefully guarded.

The civil and domestic buildings of the Venetians are few and, with the exception of the "Palazzo del Proveditore", Famagusta, of very little importance. The "Palazzo Publico" of Nicosia survived in a ruined condition until about 1904, when its last vestige was removed to make room for the new "konak" or law courts. The column intended to support the insignia of the Republic in front of the "Palazzo" still stands within a garden surrounding a neighbouring mosque, which has encroached on the public piazza. This column is of singular interest on account of the shields of arms and a curious inscription remaining on its base.

A fragment of the sixteenth-century palace of the Proveditore in Famagusta is preserved within the present police drill-yard. It consists of the outer wall of the completely ruined residence, pierced with small "rustico" windows and a doorway. The great façade or entrance to this palace also stands fronting the west end of the former cathedral church; its three rusticated arches and the four granite columns brought from the ruins of Salamis are very much hidden by subsequent Turkish hovel-building. The stone cornice of this façade has been much mutilated, and is in fact to a great extent missing. This entrance façade is the most important Venetian monument in the island.

Facing the ruins of the palace at Famagusta stand the two Venetian columns intended to support the insignia of the Republic. They are in excellent preservation, with the exception of one of the capitals which is broken. These columns, like the one in Nicosia, stand within a Moslem cemetery or mosque inclosure and consequently are the property of the Evquaf. In all probability the small lion now lying in a much mutilated condition close to the water gate was formerly fixed upon one of these columns. These columns are monoliths of fine grey granite, and came probably from the same ruined building in Salamis which seems to have provided several other buildings in Famagusta with similar ornaments.

The celebrated sarcophagus, known in the Middle Ages as the "Tomb of Venus" (of Roman style and workmanship), which stood between the two columns of the piazza until at least the Turkish occupation, was removed to the neighbour-

ing village of Varosha about 1880 for the purpose of serving as an altar-tomb in a small private burial-ground. In its present position it is well cared for.

A few fragments of Venetian architecture in the "rustico" style still survive amongst the squalid mud houses of Famagusta. It is to be feared that, as private property, they are doomed to disappear in course of time.

NATIVE ART DURING THE VENETIAN AND TURKISH OCCUPATIONS.

As already remarked the presence of Venetian colonists can hardly be detected in any remains of the sixteenth century surviving outside the walls of the great fortresses. During the 16th-17th centuries the majority of the old village churches were refitted with new woodwork in the form of an elaborate iconostasis of a more closed-up design than possibly prevailed at an earlier period, new icons, and new lamps, chandeliers, etc. These "restorations" of the period are of great interest, exhibiting the influences of a belated Venetian Renaissance style in the type of wood-carving, and of a quite mediaeval character in the huge bronze chandeliers which still hang in many of the churches. The iconostasis is always covered with minute designs of flowers, birds, dragons, etc. copied evidently from old woodcuts of fifteenth-century style, heavily gilded and relieved on a background of dark blue. The icons displayed on the screen are usually of a superior type of Byzantine painting, and include votive pictures with donors in interesting costumes. Processional icons, movable lecterns, candlesticks, etc. in the same kind of carved woodwork, are frequently to be found in these old churches. The magnificent bronze candelabra, generally of a distinctly mediaeval type, still often hang from the vaults of village churches, although they are liable to be removed when there is a chance of replacing them with the more admired glass chandelier in the modern taste.

During the Venetian period a very remarkable development in what may be termed an "imitative style of Gothic" took place, at least in Famagusta. Of this two remarkable monuments remain: the Metropolis or cathedral church of the Greeks, and the church now known as St. Nicholas. The first is a complete ruin, shattered by the bombardment of 1571; the second, remarkably intact, has been used, time out of mind, as the Government tithe grain store. They are the largest examples in the island of a method of building and design (quite unlike the orthodox Byzantine) which originated in an effort to copy the surviving monuments of the Lusignan period.

This interesting style of the sixteenth century, with its more or less Gothic architecture and Renaissance fittings, seems to have been retained almost until the British occupation. Very little architectural work was attempted in

the time of the Turks, with the exception of the rebuilding about 1700 of the great church of St. Mammias, Morfu. About 1878 many changes took place in the social condition of the Cypriotes, and since then the huge barn-shaped churches of the modern Levantine style have sprung up all over the island; a style quite unlike the imitative "Gothic" which preceded it. (See next page.)

Many of the churches and monasteries built in the seventeenth and early eighteenth centuries are well worth careful preservation as examples of this curious survival of "Gothic" architecture. In addition to the three examples referred to many smaller churches are worth a journey to inspect: Ay. Pantaleimon and Ay. Gavril monasteries in Nicosia district; the church of Tripiotis in Nicosia; the monastery of Myrton, Kyrenia district; the great monastery of Kykko in the Troodos mountains, and others too numerous to mention.

THE TURKISH OCCUPATION.

Few if any monuments of an architectural kind can be associated with the Turkish government of Cyprus during the past three hundred years. The larger ancient houses of the Latin and Venetian periods in Nicosia, Famagusta, and elsewhere, which survived the looting and general destruction of the Turkish invasion, seem to have been converted by the conquerors into homes for themselves, with much alteration and transformation. European houses inhabited by Asiatics for three hundred years have naturally lost most of their characteristic features. The walls have been pierced with large windows in all directions, covered by clumsy jalousies, which seem to have been in vogue for centuries amongst the Turks. The most striking change, however, is in the introduction of immense square projecting bay-windows of the upper floor, without which no Turkish house is complete. In a very large number of cases the architectural mouldings and other ornaments of a street house have been chiselled off the fronts by the new occupiers.

The water supply of the cities, and also of country districts, was very much altered under Turkish management; and in Famagusta several very large baths of an architectural character appear to have been erected. At the present day these latter are all in ruins, and the water supply is again undergoing a transformation with windmill pumps.

About the middle of the nineteenth century a fairly large mosque (Arab Achmet), with a dome, was built in Nicosia, and a small octagonal library, with a dome, was added to the Mohammedan High School. These buildings are of the most unarchitectural character possible, and without ornament of any kind.

It will consequently be seen that Turkish monuments come within the scope of the present review from an historical and not an artistic standpoint.

A special reference may perhaps be made to the deplorable destruction of the ancient village churches all over the island, a destruction which has taken place more especially during the past thirty years of the British occupation, and is apparently one of the best evidences of the flourishing commercial condition of the peasantry.

In almost every case the ancient church has been pulled down merely on account of its *antiquity*, a reason which would hardly be given for such a process in any other civilized country. By *antiquity* in this case is meant, not so much a ruinous or decayed condition, as the fact that the building is no longer in the approved style of the present day.

Another and more reasonable argument for the destruction of these ancient monuments is the need for increased accommodation and modern convenience. But this argument applies to only a very few instances.

When an ancient village church is pulled down and replaced by a modern building, hardly a vestige of antiquity is allowed to survive on the site; the ancient materials are used up in the foundations of the new church, or of some other building. Tombstones are made use of for various purposes, and even the iconostasis is only occasionally adapted to the larger width of the new church.

With these purposes in view it is hardly to be expected that the average member of a Cyprus village church committee will listen patiently to any arguments which may be put forward on behalf of the preservation of such ancient monuments, at least for the present. It may be hoped that in the future a different train of ideas may be infused into the minds of the church authorities in the island by the dissemination of information as to the way in which such matters are viewed in other civilized countries.

It is the desire of the present writer to draw the attention of English archæologists to the great need existing for a dissemination of correct views on the subject, either through the local press, or by distribution of pamphlets published under the auspices of the learned societies, views in support of his efforts to preserve the ancient monuments of the island.

It will be seen from the preceding pages that Cyprus possesses a long series of ancient monuments, many of which are perhaps second to none in the world for historic and archaeological interest. Even their artistic character is of great importance. The few surviving traces of the archaic and classic periods appeal to the scholar, the beautiful Gothic art of a foreign mediaeval domination and the original developments of the more native Byzantine style interest the architect and artist, whilst the magnificent fortresses of the Venetians are amongst the finest memorials of the great Republic.

The late Bishop Stubbs, of Oxford, in his University lectures of 1878, took for his theme the history of Cyprus, which he describes as "a portion of the history

of Christendom, little noticed of late years, but which is closely connected with one of the greatest movements that ever affected the history of the world". It is hardly necessary to enlarge upon the importance to future students of such monuments as may survive the destructive influences of modern times.

At the present day the great social and commercial changes due to the British occupation of the island have given rise to a strange ambition and ostentation in the minds of the village communities. This ambition unfortunately takes the form of rebuilding the ancient village churches in a spirit of emulation, one village with another. As already remarked the villagers have little, if any, veneration for mere antiquity; in fact they consider *newness* the only thing estimable either in buildings or anything else. The problem of how to counteract such an unfortunate sentiment is sufficiently difficult, and seems only to be met by suggesting the formation of an organization based in principle on the "Uffizio Regionale" of Italy. The island is divided into six administrative districts, each having its principal town or centre of population. In each of these a few individuals, say half a dozen, might be found to act as honorary local committees for the inspection of their local historical monuments in the same way as is done in Italy. Reports on intended destruction of ancient monuments could be transmitted to Government through the proper channels, and when necessary the needful and reasonable proceedings could be taken to prevent much wanton destruction.

It may be argued that the greater part of the destruction is already perpetrated, and little remains to be rescued in the twentieth century. But the same argument holds good in almost every other country. If there is very little now to preserve of interest attaching to the historic past, it will be all the easier to accomplish. It is true that many, perhaps the majority, of the village churches of Cyprus are now destroyed and replaced by the modern "barn" type of building, but the few remaining are all the more interesting and worth preservation.

In conclusion, the present Curator of Ancient Monuments would draw attention to the fact that during the past two or three years he has succeeded in securing almost all the ancient church ruins within the walls of Famagusta from further spoliation, and that taking advantage of the Antiquities law of 1905, which was drawn up chiefly with a view of regulating the traffic in "excavated antiquities", he has obtained the registration of nearly all the Government properties which are ancient as Ancient Monuments.

That which now remains to be done is the extension of protection over the monuments which happen to be in the possession of religious bodies or private owners.

VIII. *On the Early Use of Arabic Numerals in Europe.* By G. F. HILL.

Read 14th April, 1910.

THE object of this paper may best be described by explaining how it came to be undertaken.¹ The date 1481, which occurs (Table XLIV. 15) on an Italian medal of the Sultan Mahomet II, by Constantius, happened to be called in question. On inquiry it became clear that there was no reason to suspect this particular date on the ground of the forms of the numerals. But it was equally clear that there were other problems of the same kind more difficult of solution, and that the only way to approach them with any hope of success was to collect and classify as large a mass as possible of securely dated instances of the use of these so-called Arabic numerals. As always happens, the material proved to be a thousand times more plentiful, and by no means less difficult of verification, than he who light-heartedly undertook the research had supposed.

I do not wish to depreciate the work of my predecessors, to even the most casual of whom I am indebted more than I can say; but of a systematic treatment of this subject I have found no example in English, and only one, of a limited sort, in a foreign language.

What is now offered, in the shape of over 780 classified examples, is nothing more than a *vindemiatio prima*. In no one of the numerous classes in which, with full sense of the inadequacy of the classification, I have arranged the materials, can I claim to have collected anything like a fully representative series. And it would have been absurd to attempt, within the limits imposed by time and space, to envisage more than one aspect of the question. The whole problem as to the source through which these Indian numerals, if they are, as they seem to be,

¹ The bare references which are made here and there to friends and correspondents, who have assisted in the collection or verification of material, are wholly inadequate to express the measure of my indebtedness; and some kind offices may, I fear, have escaped even that meagre acknowledgement. Nevertheless I must content myself here with a brief *gratiarum actio* to those who have placed me under very special obligation, such as Mr. C. R. Peers, to whose encouragement the completion of the paper is mainly due; Mr. J. A. Herbert, who from the beginning spared no pains to note material which might be (and always was) of service, and gave me particular facilities for working at it; Mr. Max Rosenheim, whose knowledge of German seals, coins, and medals has been of great service; Dr. Kurt Regling, of Berlin, who has taken infinite pains in connexion especially with my inquiries about German seals, a subject on which I also owe much information to Dr. August Ritter von Lochr of the Vienna Museum; Prof. David Eugene Smith, of Columbia University, a recognized high authority on the archaeology of mathematics; Herr Lockner of Würzburg, to whom I owe some of the material from that neighbourhood; Mr. Mill Stephenson, who has noted examples from brasses; Dr. George Macdonald, of the Scotch Education Office, to whose inquiries are due some interesting examples from Scotland; Mr. H. B. Walters, who has placed his great knowledge of English bells at my disposal; and M. J. A. Blanchet, whose bibliographical notes on the subject have been very useful.

Indian, came to the West, has been avoided except for an incidental reference. That problem is the subject of numerous learned monographs. The present paper has nothing to do with these numerals before they were established in the West, but, once so established, seeks to show their chronological and local distribution in a somewhat clearer fashion than is possible without a large collection of grouped facsimiles. It is perhaps unwarrantable to call them facsimiles. Only a highly skilled draughtsman could do justice to the *nuances* of the forms. But for reasons into which it is unnecessary to enter, nothing better was to be had than the rude penmanship which is reproduced in these Tables. "And with this sword," let me hope with Chaucer, "shal I slen envie."

In some ways it would be best to let the Tables, with the brief descriptive notes, speak for themselves. A few general remarks, however, may be of service, to explain the classification, to note certain instances which are omitted from the Tables, and to indicate certain lines on which further research might, one hesitates to say with profit, be made.

And first, as to the limits of the inquiry. As a general rule, I have tried to sweep into my net everything earlier than 1500 that came my way. But after that date I have exercised selection. Sometimes I have gone far into the sixteenth century; other Tables will show little after about 1510. The fact is that the instances become innumerable after 1500, and many reasons conspired against including much after the time when the use of Arabic numerals had become universal.

Secondly, since it has been quite impossible to verify everything, the mere fact of my inserting any example in the Tables must not imply that I guarantee its existence at the present time. I fear that much that Gough or even Wright described may have disappeared by now.

The first thirteen Tables deal with manuscripts, under which heading are included a few dates on drawings. These manuscript instances are arranged for the most part according to their date; but it has seemed convenient to make here and there certain departures from strict chronological sequence. Notably, in Table I are grouped together the earliest instances of the numerals as used practically in the modern manner, and also a number of examples of the forms assumed by the Boethian *apices*. These signs, used in reckoning on the abacus, although clearly for the most part, if not altogether, derived from a similar source to the signs used in algorism, assumed highly fanciful forms, and did not develop logically. Also, as the method with which they were associated ceased eventually to be used, and as they never occur outside manuscripts, they lack interest from the point of view of this paper; yet it seemed desirable to record those instances which were found in the course of search for other things.

In the remaining Tables (II-XII) the examples from MSS. are grouped as far as possible century by century; certain Tables contain groups which stand on the

border lines and might be given by one authority to the end of one century, and by another authority (or by the same authority at a different time) to the beginning of the next. But within each century or chronological group an endeavour has been made to keep the MSS. of local schools together. Thus in Tables VIII foll. all the fifteenth-century instances are collected, but the English are kept together in VIII and IX, the German in X, the Italian in XI. This plan has the advantage of sometimes bringing out local characteristics very clearly, such as the 7-like German 5, the English o of the middle of the fifteenth century, shaped like a Greek ϕ , the early upright Italian 4, and so on. Table XIII gives a few instances of Arabic numerals from Greek MSS.

The dating of these MSS., it should be stated, is not based on the forms of the numerals. They have been dated, for the most part by expert palaeographers, either according to substantial evidence, or by the general style of the writing. Nearly all the British Museum examples have been submitted to members of the staff of the Department of MSS., whose monumental forbearance under exceptionally trying circumstances it would be unpardonable not to record.¹

The traps which beset the unwary in the dating of the MSS. are of course innumerable. The assumption that the date given for the composition of a work is the date at which the MS. was written, is obviously hazardous; incautiousness in this matter has produced not a few "early" instances of Arabic numerals. Such are the dates 1136, 1217, and perhaps 1245, which have been read in MSS. supposed to be contemporary.²

The numerals are first found in MSS. of the tenth century, but they cannot be said to have been at all well known until the beginning of the thirteenth.³ During all this early period there is, perhaps naturally, considerable uncertainty in the forms, as a glance at Tables II and III will show. One group, of the end of the twelfth or the beginning of the thirteenth century (Table II. 5, 6), seems to be derived from an Eastern Arabic source, whereas the derivation of the more usual forms from Western Arabic is fairly well made out. But even here (cp. the 3 in Table II. 6, third row) one finds a fusion of the Eastern and Western forms.

In tracing development, especially in MSS., one is hampered by the fact that

¹ This applies especially to Mr. J. A. Herbert, whom I have mentioned above; but my warm thanks are also due to Dr. G. F. Warner and Mr. J. P. Gilson. I hasten to add that for any blunders of statement or interpretation which may be found in this and in the other sections of this paper, I alone am responsible.

² 1136: E. de Terreros y Pando, *Paleografía Española* (1758), p. 102, pl. 12 (530 of the Arab era). This is the date of the composition of the original work; the MS., so far as one can judge from an indifferent facsimile, appears to be of the thirteenth or fourteenth century. 1217: Terreros y Pando, p. 97, pl. 2. The script is certainly later. 1245: MS. Bibl. Strozzi, mentioned in nearly all the old treatises on the subject without verification, but doubted by modern authorities.

³ Tassin and Toustain, *Nouveau Traité*, iv, p. vii, describe a fine MS. of the eleventh century, containing the works of the Benedictine Guido d'Arezzo, who gives the numerals in a treatise on the art of reckoning. I have not succeeded in verifying this.

a scribe, copying from a MS. of a century or so before his time, may, if he is not familiar with the notation, reproduce forms which had really gone out of fashion. If he were much accustomed to use Arabic numerals he would be less likely to do this. This I think is the explanation of a very puzzling set, or rather sets, of numerals in a MS. of the late thirteenth century (Table V. 1). I confess that had I come across this MS. at the beginning of my search, I should have thought twice before going on. Here we have in use, alongside of a fully developed form of 2, a form like a pruning-hook, of which the only other instances which I have found are in MSS. of the twelfth, or, at the latest, early thirteenth century (Table II. 2, 3). Then there is a very curious form of 3, like the pruning-hook 2 with an extra line through it, alongside of a well-developed modern 3. To complete our perplexity comes a fully developed upright 7, beside the ordinary lambda-shaped form. The MS. contains elaborate astronomical tables, and the solution of the confusion probably is that the scribe was compiling from various MSS. It might be said that, if that were so, we should find the peculiar forms confined to certain columns, and not used along with the ordinary forms; but if he were familiar with only these ordinary forms he would be likely to intrude them here and there.

The upright 7 occurs in the tenth-century MS. which comes at the very beginning of the Tables; also in the two MSS. already mentioned as showing the pruning-hook 2 (Table II. 2, 3; in the latter we have also the lambda-7); in a MS. at Siena which has been dated to the thirteenth century (Table IV. 8); in an Italian MS. at Florence (Table VII. 16) which is generally admitted to be of the early fourteenth century, and which also shows the upright 4 and is, indeed, so far as the numerals are concerned, extraordinarily advanced. After that, I have failed to find any instances until after 1400 (see Table XI). Yet we need not say in despair that there is no rule; these upright 7s are quite exceptional, and the occurrence of one in a MS. is *prima facie* reason for suspecting a comparatively late date. If these exceptions serve to impress upon us the truth that scientific exactitude is not attainable in palaeography, they will do no harm.

The forms that afford the best criteria are 2, 4, and 7; next comes 5, but it is the most freakish of all figures, and therefore a little untrustworthy. The others are practically negligible.

Allowing for exceptions, it may be said that the three-stroke form of 2, as opposed to the old 7-shaped form, does not appear before the second half, and is quite rare before the end, of the thirteenth century. The transition is well seen in an English MS. of about 1300 (Table V. 7). By the middle of the fourteenth century the old 7-shaped form has practically disappeared (see, however, Table VI. 9).

As to 4,¹ there are a few examples in which a slight lifting of one of the legs

¹ Mr. George Macdonald, of the Scotch Education Office, calls my attention to a form of 4 resembling + used in certain Scotch accounts, e.g. those of the Lord High Treasurer in the Register House, Edinburgh, where the 4 in 1545 is so made, or Andrew Halyburton's Ledgers (1493-1503).

gives to the old form an appearance of the modern (*e.g.* Tables IV. 2, VI. 16). These are, however hardly misleading. The Florence MS. (Table VII. 16) has already been mentioned. The transition to the upright form begins very gradually after the middle of the fifteenth century in England (the latter half of Table VIII shows this clearly). Italy, however, is far ahead of other countries in this respect, showing a fully developed modern form both in monuments and in MSS. quite early in the fifteenth century.¹

Of 7 I have already spoken.

5 shows many fantastic forms, but the general essential of the sign is the same. A curious intrusion of a Roman V into the Arabic series is shown in an early thirteenth-century MS. (Table IV. 2). This is of interest in connexion with the probability that what we call the Arabic 5 was an adaptation of the late Roman form.²

The 7-shaped German form of 5 is well illustrated in Table X. In MSS. it is superseded early in the sixteenth century by the more modern form; elsewhere it lasts longer. It is of course an intelligible development from the older form; but as soon as the upright 7 became established, it had to disappear. The instances analysed in Tables X and XXII illustrate the conflict.

The series given in Table XIII from Greek MSS. are derived partly from Eastern Arabic, partly from Western sources. No. 2 is exactly the same as the series in the eleventh-century Chartres MS. (Table I. 7). Nos. 3 and 8 are purely Western in appearance, save for the inverted 7 in the latter. Nos. 1, 4, 5, and 6 point to an Eastern Arabic origin; note the circular form of 5 in two of them, and with some of the forms (2, 3, 4, 5, 7) compare those in the Berlin MS. (Table II. 6).

After the MSS. I have placed series from British monuments. Although the material is scanty, and I have by no means collected all the known instances, it is not out of a mere false patriotism that I have placed them first. The Wells numerals (Table XIV. 1) are among the most interesting, and probably the earliest to be found anywhere outside MSS., even if we allow that fashions of epigraphy are apt to change more slowly in monumental than in manuscript work. The upright 7 from Elgin (XIV. 4) may possibly be traced to foreign influence; it is certainly early for this island. The tendency to assimilate numerals to letters is noticeable in dates such as that of 1503 from St. Cross (Table XIV. 12) or that of 1534 from Eccleston (Table XIV. 20), and more especially in some of the brasses in Table XVI. The h-shaped 5 is found reversed in a date in Brading Church, Isle of Wight, which has been read Mld13, but which, as Mr. Peers points out, is really A (for Anno) 1513. (See Supplementary Table, LI. 13.)

¹ A Heidelberg MS. from Kloster Salem shows the rivalry between the old and the new form in the years 1494-1499, the scribe using one form, the miniator another. *Anzeiger für Kunde d. Deutschen Vorzeit*, 1867, p. 161.

² Found, *e.g.*, on coins of Justinian I, struck in A.D. 541-2 (W. Wroth, *Brit. Mus. Catal. of Imperial Byzantine Coins*, i, p. 31, no. 56).

Pages could be filled with instances of doubtful, misread, or misinterpreted dates on English monuments. I have relegated some of them to a footnote.¹

Next follow the examples from Germany and German lands, more especially Austria. The evidence from the latter country is very plentifully published in the *Mitteilungen der kaiserlich-königlichen Central-Commission für Erhaltung und Erforschung der Baudenkmale*, the first series and the Neue Folge, which I have abbreviated as *M.C.C.* and *M.C.C., N.F.* I have found no periodical giving such plentiful illustrations of monuments from Germany, with the result that examples of the use of Arabic numerals may seem to occur more frequently in Austria, as compared with Germany and other countries, than is really the case. Italy, for instance, is, I fear, poorly represented in my Tables, although a great deal of evidence exists, to my knowledge, in an unpublished form. Of the two countries, Germany and Italy, it is racially characteristic that while the Germans seem to

¹ The Helmdon mantelpiece, a stock subject for discussion in the eighteenth century (*Philosophical Transactions*, 1731, i, fig. 55, at p. 199), supposed by many to bear the date 1133, cannot from its style have been earlier than the late fifteenth century. There was a somewhat similar oak chimney-piece at Widgel Hall, Herts., perhaps of 1516 (*op. cit.* 1735, p. 119), though the 16 has been explained as 1. 6. The most ludicrous things have been written about a cruciform arrangement of figures at Castle Acre Priory (J. H. Bloom, *Castle and Priory at Castle Acre*, p. 25), which might conceivably be meant for 1480, but is certainly not so early. The figures 1393 on a brick illustrated by Mr. Rider Haggard in *A Farmer's Year* (1906), p. 323, and since presented by him to the British Museum, appear from their style to date from the seventeenth century at the earliest. The iron scutcheon plate on the south door of the nave at Rendcombe Church, Gloucestershire, has six signs, of which the first, second, fourth, fifth, and sixth might be read as 10 417; but the third can hardly be explained as a figure. See *Arch. Journ.* vi. 291. A curious puzzle is presented by the date 1410 which was published in the *Antiquary*, xxxviii, p. 258, as from the brass of John de Campden in St. Cross, Winchester. No such date is to be seen on that brass, and all inquiry has failed to elicit an explanation. Either the facsimile given is a clever invention, for the forms are most plausible, or the person who sent it to the *Antiquary* has confused his notes as to the provenance of the date. It ought to be inquired into, as, if genuine, it (with the Fountains seal, Table L. 6) is the earliest English instance of the kind, saving the Wells numerals.

1485 occurs on a brass (of John Pulter) in a slab on an altar-tomb (of earlier date) in the north chapel of Hitchin parish church. The forms (modern 4 and 5) show that the numerals are later than the alleged date [Rubbing communicated by Mr. Murray Kendall]. The date 1489 given by Haines from a brass at Fressingfield, Suffolk, as being in Arabic numerals, is in Roman. 1490 on the brass of Wm. Fordmell, Vicar of Borden (Belcher, *Kentish Brasses*, i, p. 12), cannot be contemporary.

1265 on a bell at North Wootton near Wells (W. E. A. Axon, *Proc. Manchester Lit. and Phil. Soc.* 1876, pp. 173 ff.) is for 1625, as, Mr. H. B. Walters assures me, is proved by the work. The date 1489 on the bell at Eglington, near Alnwick, also mentioned by Mr. Axon, is in Roman numerals. The signs which have been read 1508 on a bell at Rayleigh, Essex (Deedes and Walters, *Church Bells of Essex*, p. 40), are probably not numerals at all; the third sign looks like u or n. The reading I h u s (for *Jesus*) has been suggested, but is unlikely. I h n s for *Johannes* seems to have even less in its favour.

English dates which I have not found time or opportunity to verify or use, but which should be included in any corpus, are 1483 and 1494 from Fountains, 1489 and 1494 from Ripon, all with the old forms of 4 (*Notes and Queries*, ser. iv, p. 375). Mr. H. B. Walters informs me that early dates (for bells) occur on bells at Greystoke, Cumberland (1524), Wood Ditton, Cambridge (1544), and Elmley Castle, Worcs. (1559, now recast). Mr. G. L. M. Clauson has kindly procured for me rubbings of the dates on brasses in Eton College Chapel, viz 1525, 1532 (Thomas Smith), 1545 (T. Edgcumb), and 1560 (Robert Stokins). The last shows the o with a slanting stroke through it.

be ahead in the practical use of the numerals, the Italians lead the way in the development of their forms. The fact that France produces hardly any examples cannot, I think, be wholly due to the accidents of search or publication.

German examples are also well represented because it happens to have been a German who published the most elaborate study of the whole subject which has hitherto appeared. Mauch, in his articles in the *Anzeiger für Kunde der Deutschen Vorzeit*¹ for 1861, deals very fully with the German evidence, drawn from architectural monuments, seals, etc. He has, however, little to say about MSS., and even his monumental instances are mostly drawn from a comparatively limited district. His articles are, nevertheless, the only serious attempt known to me at a systematic treatment of the subject.²

It is hardly necessary to mention the date 1007 on a gravestone at Katharcin near Troppau, since it is universally rejected.³ But the following require to be dealt with:

1299. This, which appears to be a sculptor's mark on a gravestone of the Count of Katzenellenbogen, in the Schlossgarten at Biberich, seems to be very doubtful. [The only illustration I have seen is in Hefner-Alteneck, *Trachten*, i. Taf. 27.] I have not included it in my Tables.

Fig. 1. Date at Weissenburg.

Fig. 2. Date at Pforzheim.

1327 (fig. 1). On the church at Weissenburg im Nordgau (Mittelfranken). The contemporaneity of this is with justice doubted by Mauch (*Anzeiger* (1861), p. 81). Cp. the 1439 of Table XVIII. 4.

1371 (fig. 2). Schlosskirche, Pforzheim. See *Anzeiger*, 1861, p. 83. The evidence as to this is highly unsatisfactory. Herr E. Wagner of Karlsruhe, who kindly made inquiries for me, elicited the fact that an inscription in memory of Luitgard Göldenerin with this date is now painted on the wall of the church; but it is uncertain whether it was always painted on the wall, or whether when the church was restored in 1880 the plaster was laid over the possibly still existing slab. The inscription is given by Gehres, *Kleine Chronik von Pforzheim* (Karlsruhe, 1811), p. 30. It is clear that the forms as they now stand are useless; but even those given in publications earlier than 1880 seem to me very doubtful for the date.

1398. This supposed date at Constanz is not contemporary, the context showing that the inscription cannot be earlier than 1462. See J. Marmor in *Anzeiger*, 1861, p. 268 f.

¹ Hereafter usually referred to simply as *Anzeiger*.

² Some information may also be gained from Denzinger's articles in the *Archiv des histor. Vereins von Unterfranken und Aschaffenburg*, ix (1847), pp. 163, 178.

³ *M.C.C.* xi (1866), p. xlvii; *Anzeiger* (1876), p. 34.

The dated German seals are among the most interesting and also the most treacherous examples with which we have to deal. In Germany and in Austria, in the second half of the fifteenth century, it became quite the fashion for any person or corporation, to whom a grant of arms was made, to place the date thereof on a seal.¹ There are, however, undoubted instances of the practice in the fourteenth century, which will be found in the Tables. Here we may deal with a few doubtful or otherwise interesting examples.

1235 (pl. XIX, no. 1). Seal of Gottfried von Hohenlohe. See *Anzeiger*, 1861, p. 48; 1866, p. 265; 1871, p. 261 f.; Albrecht, *Die Hohenlohe'schen Siegel des Mittelalters*, no. 6: Fürst Hohenlohe-Waldenburg, *Sphragistisches Album*, Beilage A zu Hohenlohe; G. A. Seyler, *Abriss der Sphragistik*, p. 28. No original impression is known; but there are or were *two examples of the matrix* in the Fürstlich Hohenlohe-Neuensteinsches Kunst- und Raritäten-Cabinet in Kirchberg a. d. J., one in copper, the other in silver; both 0.5 cm. thick and smooth at the back. Both matrices are the same, but one is better engraved than the other. One of these matrices seems to be mentioned as early as 1644. No other seals of the thirteenth century dated in this fashion are known. The work is extremely good. It has been suggested, in explanation of the early occurrence of these numerals, that Gottfried was frequently in Italy. That is no explanation, since the numerals would be as surprising in Italy as in Germany. The Trinity College, Cambridge, MS. (Table III. 1), supposing it to be rightly dated, shows that the forms of 2 and 3 are just possible in the first half of the thirteenth century. But I have found no other instance of this form of 2 so early. If the last figure is a 5 (and it can hardly be, as Seyler reads it, a 3 reversed, seeing that the engraver had just made one the right way), I can find no parallel to it *until the sixteenth century*, when it is furnished by the Brensbach date of 1526 (Table XXII. 12). The possibility of this seal being a forgery of the sixteenth century must therefore not be overlooked. It is strange that there are extant two matrices and no ancient impressions.

1320. Trostberg (pl. XIX, no. 8). The wax impression from the Germanisches Nationalmuseum, Nürnberg, shows clearly that we have to do with a sixteenth-century seal. With the looped forms of the numerals compare those in

¹ A list of dated seals from 1369 onwards is given by Mauch in *Anzeiger* (1860), pp. 13 ff. See also E. Melly, *Beiträge zur Sigillographie*, and the various volumes of the *M.C.C.* referred to in the descriptions of Tables XXI–XXVI. Outside Germany early seals with Arabic numerals are very scarce, if indeed they occur at all before the sixteenth century. England, curiously enough, offers an isolated example as early as 1410 (Table I. 6). G. Demay, *Inventaire des Sceaux de la Normandie* (1881), p. vii, gives 1503 (Philippe de Clèves, Seigneur de Ravenstein), 1511 (Denis, Abbé de Loos), and 1515 (George, Duke of Saxony) apparently as the earliest instances of the use of Arabic numerals for this purpose known to him! For some information as to German seals (which, however, reached me too late for incorporation) I have to thank Dr. E. Gritzner of Weimar; he notes, for instance, the seals of the city of Munich of 1478, and of Weissenhorn in Bavaria ("S' civium in Wessenhoren 1476"). Dr. Theodor Hampe has kindly enabled me to obtain reproductions of a certain number of seals in the Germanisches Nationalmuseum at Nürnberg.



1



3



2



4



5



6



7



8

GERMAN SEALS WITH DATES IN ARABIC NUMERALS

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Table XXII. 4, 15. The seal is mentioned in *Anzeiger* (1866), p. 265; by G. A. Seyler, *Abriss der Sphragistik* (1884), p. 28, and elsewhere, without suspicion.

1408. "Sigillum Universorum Civium in Marchekk." Melly, *Beiträge*, pl. i. and p. 37. Melly says "the work shows that the date 1408 cannot refer to the making of the seal, but to a renewal of the grant of arms, or else, more probably, it arose from an engraver's mistake for 1480".

1410. Gars. Written 14x (with the old form of 4). *M.C.C.* xix, p. 88. Not contemporary.

1439? (pl. XIX, no. 2). Seal of Otto von Henneberg, Germ. Nationalmus., Nürnberg. This is the identification given in *Anzeiger* (1859), p. 250, but the date is queried. The last digit looks like a 4. Further, Otto V, the only one who can be in question, was only two years old in 1439. He died in 1496. The date may be 1484. The inscription is "S. oct. von Gots gnade g̃ve und her v. henbg".

1449. Markt Veldkirchen. *M.C.C.*, p. cxxxiv. This has the modern 4, and looks altogether more modern than the date.

MCCCCA = 1470. Print from seal of Plebanus John of St. Moritz in Augsburg. On this, which is interesting from the point of view of notation, see below (p. 150).

1488. On a seal of the city of Baden (Lower Austria) commemorating the siege by the Turks in 1529. The date is meant for that of the Wappenbrief, but should be 1480. It has the upright 4. A similar seal with the right date, 1480, was engraved in 1566. *M.C.C.* ix, p. v.

Table XXVII records a few German examples from miscellaneous objects, some quite late, but interesting because of their fantastic forms.

The reproductions of examples from German paintings (Tables XXVIII, XXIX), as of those of Italy and the Low Countries, have been taken for the most part from the facsimiles in the official catalogues of the collections mentioned. These sources, supplemented by a few notes of my own from actual pictures, ill represent the mass of interesting material which this class of objects affords.

In Table XXX woodcuts, metal-engravings, and printed books have been lumped together, perhaps not very scientifically.¹ The list of examples from printed books might of course have been made enormously larger, but with doubtful profit.

Among the German coins and medals I have not included the Schaumünze of Maximilian and Mary of Burgundy bearing the date 1479, and the ages (19, 20) of the pair, because it is a later reproduction, based on the contemporary medal by Candida.

¹ My thanks are due to Mr. Pollard and Mr. Scholderer for information with regard to early printed books, both German and Italian. I am assured that the mark of Caxton, which appears to combine an ancient 4 with a modern 7, should not be regarded as embodying a date.

The series of Swiss coins, and of coins, jetons, and medals of the Low Countries, are in various ways interesting; the former (Table XXXIV. 1) as affording the earliest known instance of a Western coin proper with date in Arabic numerals;¹ the latter as showing a fairly continuous run of dates from the last quarter of the fifteenth century onwards, and illustrating the reluctance of the old forms of 4 and 7 to disappear.

The forms of the numerals 2, 3, 4, 5, which occur on certain *rifacimenti* of the famous late fourteenth-century medal of Constantine seem to me to belong to the early sixteenth century, and to be Flemish. Cp. *Num. Chron.*, 1910, pp. 115 f.

In connexion with these examples from the Low Countries I may notice the puzzling dates on the Flemish tapestry of the "Triumph of Chastity" in the Victoria and Albert Museum, to which Mr. Maclagan has directed my attention. The date 1507 (with the lambda-7) is quite normal, and suits the style of the work. But on the same piece is a date which can as it stands only be read as 1570 (with

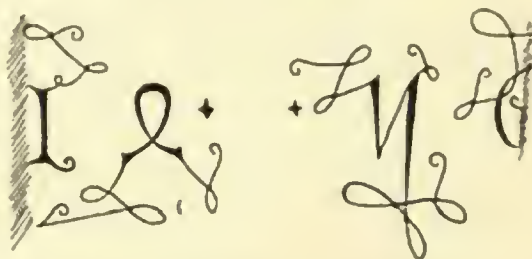


Fig. 3. On a painting by Jean Fouquet.

the modern 7). As there is considerable space between the 7 and 0 it may be that the bottom stroke of a Z-shaped 2 was omitted in weaving, as Mr. Maclagan suggests, in view of the carelessness or illiteracy that is elsewhere perceptible in the inscriptions. The date would then be 1520, representing the date of the completion of the work. Other explanations suggest themselves (as a mistake of 1570 for 1507); but they are less probable.

Table XL includes a few medals, some of which are French, others perhaps Italian, while even in those which are certainly French Italian influence is strongly felt. French evidence is again curiously lacking. It is convenient here to note the graceful instance (1456) from the portrait by Jean Fouquet in the Liechtenstein Collection, which, since it hardly admits of tabulation, is reproduced in fig. 3. Another early date, 1461, is said to occur on a portrait by Nicolas Froment in the Uffizi.

Tables XLI and XLII are compiled, as I have already indicated, chiefly

¹ The earliest occurrence of a date in Arabic numerals on a coin is found in the reign of Roger of Sicily, 533 A.H. = 1138 A.D. See E. v. Zambaur, *Contributions à la Numism. Orientale*, *Num. Zeitschr.*, xxxvi, p. 83. But this occurs as part of an Arabic inscription. I owe the reference to Mr. J. Allan.

from official catalogues.¹ Table XLIII is mainly from Fortnum's *Majolica*: Tables XLIV and XLV, on the other hand, are nearly all compiled from original medals, plaster casts, or good photographic reproductions. Research has confirmed much that seemed doubtful in this group; thus the Carrara medals, dated 1390, are now generally admitted to be contemporary.² The incised dates on Table XLIV. 5, 6 cannot be doubted. The appearance of the old form of 4 in Table XLIV. 12, 13 is explained in the notes to the Table.⁴

Table XLVI, which it might have been hoped would be large, is rather inadequate. A certain number of additions will be found in Supplementary Tables L and LI. On the other hand, Italy affords one of the most striking instances of the necessity of some such collection as I have endeavoured to make: the date 800 on the sarcophagus of Pagavus Petrasanta at Milan, which is obviously and without question of late origin.⁵ I notice also the date 1322 on a piece of artillery (which was in existence at Mantua down to 1849) as being exceedingly doubtful in the form illustrated and accepted as genuine by Rocchi.⁶

A curious problem is presented by the 140 reproduced in fig. 4. The numerals are incised on the sole of the right sandal of a statuette of Marcus

¹ The date 1391, on a painting by Spinello Aretino, will be found in the Supplementary Table L. 5, having been recently sent me by Mr. A. H. S. Yeames. 1464 is to be seen on a painting by Antonazzo Romano at Rieti (*Rassegna d'Arte*, 1909, p. 43) and on the banner with Our Lady protecting Perugia painted by Benedetto Bonfigli (Heywood, *Perugia*, at p. 299).

² I have not included the two examples of 1519 on two pieces of Gubbio ware (Fortnum, p. 29) because of their suspiciously modern appearance.

³ See especially Guiffrey in *Rev. Num.* (1891), pp. 17-25, and J. von Schlosser in *Jahrb. d. kunsthist. Samml. des A. H. Kaiserhauses*, xviii (1897), pp. 64 ff.

⁴ This table of Italian medals may claim to be fairly representative; but I have not been able to verify the following: 1455, Franc. Sforza (Armand, *Médailleurs italiens*, ii. 26 1, perhaps not contemporary); 1460, Borso d'Este (Heracus, pl. lii. 1); 1467, plaquette by Enzola (Armand, i. 46. 13); 1490, Unknown woman (Armand, iii. 183 D); 1498, Gioacchino della Torre (Armand, ii. 71. 10); 1498, Gianfrancesco della Rovere (Armand, ii. 106. 22); not to mention some later than 1500. The dates 1488 on a medal of Francesco Accolti and 1498 on one of Ser Cecone de' Baroni, and indeed the medals themselves, are false. (See *Rev. Num.* (1895), p. 460, and *Burlington Magazine*, Oct. 1909, p. 31.) The 8s in the date on the Accolti medal are like a recumbent ∞ , a shape which comes in towards the end of the sixteenth century. See Table XII. 13.

⁵ F. Burger, *Gesch. des florent. Grubmals* (Strassburg, 1904), p. 34. Mr. A. H. S. Yeames has kindly reported to me a number of interesting examples; those of which I have been able to obtain clear photographs are entered in the Supplementary Tables. The others are from the armorial tablet in the Court of the Bargello at Florence: 1437, 1439, 1445, 1448, 1456, 1463, 1475, 1487. Other instances which I have noted, but not yet succeeded in verifying satisfactorily (even to the extent of learning whether they are in Arabic numerals at all), are: 1456, bust at Berlin, inscribed ALEXO DI LIXCA MIXI (Venturi, *Storia dell' arte ital.*, vi, p. 636, doubts the inscription); 1461, Berlin, terracotta copy of a Madonna by Bellano (Venturi, p. 487, suspects this inscription); 1475, tomb of Lorenzo Roverella, in church of San Giorgio di Ferrara, by Ambrogio da Milano (*ib.* p. 620); Cremona, Duomo, fragment of tomb of S. Arialdo, signed ZO. ANTONIO. AMADEO. F. OPVS. 1484 (*ib.* p. 901).

⁶ *L'Arte*, ii (1899), p. 348.

Aurelius on horseback, a copy of the famous statue on the Capitol.¹ The statuette (which is in the Vienna Museum) has been ascribed to L'Antico,²



Fig. 4. The date 1470 on a bronze statuette of Marcus Aurelius, Vienna Hofmuseum.

although the date creates serious chronological difficulties. However, in his splendid monograph³ on L'Antico, which has just appeared, Dr. H. J. Hermann definitely discards the attribution to L'Antico, chiefly because of the date. He urges that the figures must represent a date, not an inventory-number, since few collections at that period could have contained so many as 1470 objects of this kind. I may add that an inventory-number would be incised after the object had been acquired for the collection, whereas these figures have the appearance, at least in the photograph, of having been incised in the soft material of the original model. It is just conceivable that it was an opus-number, incised by the artist at the last moment before casting. The point, however, which chiefly concerns us at present, is this: if this is a fifteenth (*a fortiori* a sixteenth) century Italian bronze, how come these archaic forms to appear on it; forms that had long vanished from Italian arithmetic, unless the evidence marshalled in this paper contains even more serious gaps than I had suspected? There is nothing northern about the style of the bronze, although it is difficult to judge of such a matter in a close copy of an antique. Perhaps the most probable solution is that it is the work of a northern artist who had settled in Italy, but had not acquired the Italian style of writing.

Dr. Hermann points out that the statuette may well be connected with the repairs to which the statue was subjected in the reign of Paul II. These were begun in 1466, and as the work was still unfinished in 1470,⁴ the statuette may well be connected with the restorer's task. But whatever be the explanation of the numerals, analogies must be found before we can accept them as having been incised by an Italian in the fifteenth or early sixteenth century.

The Italian engravings and printed books do not offer much of interest, but the Italian reproduction of a German date in Table XLVII. 8 is worth noting. An important example of the year 1461 was recently brought to my notice by Mr. A. M. Hind, and will be found in Table LI. 1.

Table XLVIII should be used with great caution, both the authorities on which it is based, Rottiers and Belabre, being untrustworthy. But I could not bring myself to exclude the evidence from this outpost of Western culture. Italian influence was evidently strong there. As the knights left the island in

¹ I am obliged to Ritter A. von Loehr for the photograph from which the illustration is made.

² See, for instance, J. von Schlosser, *Werke der Kleinplastik in der Skulpturensammlung des A. H. Kaiserhauses*, i, p. 4, pl. x.

³ *Jahrbuch der kunsthist. Sammlungen des A. H. Kaiserhauses*, xxviii (1910), pp. 268, 271.

⁴ E. Müntz, *Les Arts à la Cour des Papes*, ii, pp. 27, 92 ff.

1522, it is improbable that any of their inscriptions were restored; the more is the pity that good facsimiles are wanting.

At the time when Arabic numerals were beginning to make their way into common use, and even before that, some people had realized the extraordinary obstacle that the Roman system of notation placed in the way of progress. Greek numeration, which is as much superior to Latin as it is inferior to Arabic, is sometimes used in Western MSS. Thus in the Libri Catalogue (Sotheby's, 1859) we find:

(a) No. 298 and pl. III. St. Cyprian, saec. VIII-IX (not VII-VIII as in the catalogue), numerical signs according to the ancient Greek alphabetical system.

(b) No. 299. St. Cyprian, now in the Bodleian. Greek numerals, P for 100, C for 110 (instead of 200), *stigma* sometimes for 7 (instead of 6). Both these are certainly Western MSS.

(c) No. 760 and pl. XXI. Pancratii martyris officium et passio. Saec. X. Greek letters up to Π with numerical values.

The Greek system, however, never found favour in the West. Still less did the invention (or conveyance) of an Englishman, John of Basing, who is said to have introduced "Greek" numerals. As a matter of fact they were nothing of the kind. Matthew Paris (*Chronica Majora*, ed. Luard, v. 285) is the authority for the statement. His system was a combination of a constant vertical with varying horizontal or slanting lines. With certain exceptions, multiplication by ten was indicated by reversing the sign; thus J = 8, L = 80. There was a special sign for the cipher. John of Basing's system falls into the same class with the semaphore-like system which some old writers call Chaldaean, and which seems to have been used by astrologers.¹

Finally, a few notes on certain peculiarities of notation may not be out of place.

The change of direction in writing numerals, from the old one of right to left to the modern one of left to right, is illustrated by a few cases. One is given by Hale, *Domesday of St. Paul's* (p. xiv): "Tabula Registri de Visitatione Maneriorum per Robertum Decanum, anno domini m.cc.xxii." Here the folios are numbered with Arabic numerals, written originally from right to left, the numbers being afterwards struck out, and a fresh series written in nearly the same character, but from left to right. Uncertainty as to whether they are contemporary with the date given has prevented their inclusion in the Tables.

The mixture of Roman and Arabic numerals is very common. In addition to instances which will be found in the Tables, I give the following from MSS.:

B.M. Royal 10 E. iii f. 294: caution dated a° dñi m° cccc^{mo} 6°. English.

B.M. Royal 12 C. xv f. 264: owner's signature, anno dñi m° 400. English.

¹ See G. Friedlein, *Die Zahlzeichen und das elementare Rechnen der Griechen und Römer*, Erlangen (1869), p. 12 and pl. i. For other artificial systems see Wattenbach, *Anleitung zu lat. Paläogr.*⁴, p. 103.

B.M. Sloane 2478 f. 35 b.: mill' cc' 66"; cf. ff. 15, 15 b.

B.M. Harl. 2316. m' cc' 58, m' ccc' 43, &c. English mid. XIV.

Mabillon (*de re Dipl.* t. xv, p. 373, ed. 1681) gives the following example ("ex cod. Cavensi in cujus initio monachus Benedictinus crucem ferens pingitur") of chapter numbering: 1. 2. 3. 4. 5. 6. 7. 8. 9. x. xi. xii. xiii. xiv. xxx. xxxi. 302. 303. xxxx. 401. 405.

i. 5. iiii. = 1504. See Jakobs u. Ukert, *Beiträge zur älteren Litteratur oder Merkwürdigkeiten der herz. öff. Bibl. zu Gotha* (Leipzig, 1835), ii. 1. 64 note. m. ccc. 35 = 1335. *Id.* i. 2. 208.

14.LXIII, 14.LXX, 15.6 (= 1506): see Wattenbach, *Lat. Paläogr.*, p. 104. For the omission of o in the tens' place see Table XVIII. 2.

m. cccc. 8 ii = 1482, Wattenbach⁴, p. 104.

An unusually interesting example is the woodcut representing the seal of John, priest of St. Moritz in Augsburg, with date a' m' cccc 7 (the 7 being of the *lambda* form). The original block of this is in the Hof-Bibliothek, Munich. Prints of these were used by John as an ex-libris, e.g. in books of *circa* 1472 and 1475. The date thus appears to be meant for 1470; the years of the decade might be added by hand. It cannot mean 1407. Libri, *Mon. ined.*, pl. lii; Schreiber, *Mannell*, 2039; *Catal.* 42.

The example from Mabillon shows the notation 302 for 32. Of the same kind is the date anno dni. 1000. 300. 80. 4" in a MS. in the Plimpton Collection (D. E. Smith, *Rara Arithmetica*, p. 444). The forms 610 (for 16) and the like (see note on Table IV. 1) are curiously systematic, evidently assuming that the numbers would go up to 100 at least. Less logical, but easily to be understood, are the following:

15011 on a majolica tile in the Civic Museum, Turin. Wallis, *Italian Ceramic Art: the majolica pavement tiles of the fifteenth century*, fig. 66.

15013 (for 1513). S. Antonino of Florence, *Summula confessionis*, printed at Paris.

15013. Date in colophon of *Confessionale* of S. Antonino, printed at Paris. Communicated by Prof. Pernice from a copy at Greifswald (No. 910). See Wattenbach⁴, p. 105.

As a modern parallel to these it may be worth mentioning that in a recent letter from a resident in Rome I read that "the Vittorio Emanuele Monument, like everything else, has got to be ready for the celebrations in 19011".

Readers who use the Tables which here follow are reminded that a certain number of examples, received too late for incorporation, will be found in the Supplementary Tables XLIX ff.

II. MSS.: XII-XIII CENT.

1	1	2	3	4	5	6	7	8	9	0	XII early.
1	1	2	3	4	5	6	7	8	9	0	1143.
1	1	2	3	4	5	6	7	8	9	0	XII-XIII.
1	1	2	3	4	5	6	7	8	9	0	c. 1200.
1	1	2	3	4	5	6	7	8	9	0	XII end.
1	1	2	3	4	5	6	7	8	9	0	XIII.
1	1	2	3	4	5	6	7	8	9	0	XIII.

III. MSS.: XIII CENT.

1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	c. 1230-50.
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	1246.
1	2	3	4	5	6	7	8	9	0	c. 1250?
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	XIII.
1	2	3	4	5	6	7	8	9	0	aft. 1264.
1	2	3	4	5	6	7	8	9	0	c. 1280.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII late.
1	2	3	4	5	6	7	8	9	0	XIII end.

I. MSS.: EARLIEST FORMS AND BOETHIAN APICES.

1	2	3	4	5	6	7	8	9	0	976.
1	2	3	4	5	6	7	8	9	0	X.
1	2	3	4	5	6	7	8	9	0	1077.
1	2	3	4	5	6	7	8	9	0	XI.
1	2	3	4	5	6	7	8	9	0	XI.
1	2	3	4	5	6	7	8	9	0	XI or XII.
1	2	3	4	5	6	7	8	9	0	beg. XII.
1	2	3	4	5	6	7	8	9	0	XII.
1	2	3	4	5	6	7	8	9	0	XII.
1	2	3	4	5	6	7	8	9	0	c. 1200.
1	2	3	4	5	6	7	8	9	0	c. 1200.
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	?
1	2	3	4	5	6	7	8	9	0	XV.
1	2	3	4	5	6	7	8	9	0	XVI early.

IV. MSS.: XIII CENT. (continued).

1	II		2	4	9	8	0	XIII beg.
2	I	7	v	6	9	8	0	XIII early.
3	I	777	4	6	9	8	0	bef. 1271.
4	I	22	44	66	99	88	0	XIII end.
5	I	7	4	6	9	8	0	XIII end.
6	I	222	44	66	99	88	0	1256.
7	II	7	4	66	99	88	0	XIII.
8	I	2	44	66	99	88	0	1272.
9	II	222	44	66	99	88	0	c. 1260-70.
10	I	17	4	6	9	8	0	XIII.
11	8	77	44	66	99	88	0	
12	I	77	44	66	99	88	0	

V. MSS.: XIII-XIV CENT.

1	II	77	44	66	99	88	0	XIII late.
2	II	27	44	66	99	88	0	
3	I	7	44	66	99	88	0	
4	I	222	44	66	99	88	0	
5	I	77	44	66	99	88	0	XIV beg.
6	I	7	44	66	99	88	0	XIII-XIV.
7	II	772	444	666	999	888	000	c. 1300.
8	I	22	44	66	99	88	0	c. 1300.
9	I	2	44	66	99	88	0	XIII-XIV.
10	I	7	44	66	99	88	0	XIII-XIV.

VI. MSS.: XIV CENT. ENGLISH

1	I	77	44	66	99	88	0	c. 1320-30.
2	I	7	44	66	99	88	0	XIV early.
3	I	772	44	66	99	88	0	XIV.
4	I	772	44	66	99	88	0	XIV early.
5	I	77	44	66	99	88	0	1334.
6	I	22	44	66	99	88	0	XIV early.
7	I	77	44	66	99	88	0	c. 1330-40.
8	I	2	44	66	99	88	0	XIV.
9	I	77	44	66	99	88	0	mid. XIV.
10	I	2	44	66	99	88	0	XIV.
11	II	2	44	66	99	88	0	XIV.
12	II	2	44	66	99	88	0	c. 1350.
13	I	2	44	66	99	88	0	XIV.
14	I	2	44	66	99	88	0	aft. 1367.
15	I	2	44	66	99	88	0	1380.
16	II	2	44	66	99	88	0	1381.
17	I	2	44	66	99	88	0	XIV late.
18	I	7	44	66	99	88	0	XIV.

VII. MSS.: XIV CENT. (*continued*).

[illegible][illegible]

XII. MSS.: XVI CENT.

1	||		γγ	4	77				1503.
2	|				5				1504.
3	|||				γγ	6			1505-10.
4	|	2		2	γ		8		1508.
5	|	2			γ				1510.
6	|		3		5				1513.
7	||			4	5				1514.
8	|	2	2	4	γγ	6	7	9	c. 1515.
9	||				5	>			1517.
10	|	2	3		5				1523.
11	|	2	3	2	5	6	8	9	c. 1524.
12	|	~	γγ	4	γγ	6	8	9	1545.
13	|	2	3	4	5	6	∞		c. 1560.

XIII. MSS.: GREEK.

1	|	π	μ	ς	ο	ς	ν	λ	9	ο	XIV.
2	|	ζ	μ	μ	γ	μ	λ	8	9		XIV.
3	|	2	μ	6	γ	6	λ	8	9		XIV.
4	|	ν	μ	γ	8	γ	ν	λ	9		XV.
5	|	ν	μ	γ	δ	γ	ν	λ	9	ο	?
6	|	μ	μ	γ	ο	γ	ν	λ	9	-	XV.
7	|	2	μ	6	λ	6	7	8	9	ο	XV.
8	|	2	μ	6	γ	6	ν	8	9	ο	XV.

XI. MSS.: XV CENT. (continued). (ITALIAN.)

1	|	2	3	2	γ	8	γ	ο	c. 1400-16.
2	|	2				8			1427.
3	|	~	2	γ	6	8			c. 1400-35.
4	|	2		4					1440.
5	||	22	3	22	6	8	9	ο	1444.
6	|	2	33	555	6	8	9	ο	c. 1420-44.
7	|	22	3	5	6	8	9	ο	c. 1456.
8	|	2	3	γγ	6	8	9	ο	XV.
9	|	2	3	γ	6	8	99		XV.
10	||	2	333	44	6	88	9	ο	XV ¹ .
11	|		5						1473.
12	|					8			1478.
13	|	2	2	5	6	8	9	ο	c. 1475.
14	||	222	33	γγ	6	8	9999		c. 1476.
15	|			γ		8			1478.
16	|			γ		8		ο	1480.
17	|	2	33	γγ	66	8	9	ο	c. 1490.

XV. BRITISH MONUMENTAL, ETC., 1545-1592.

1	1		4	SS			1515.
2	1	2		11			1552.
3	1		5	5	7		1577.
4	1			5	>	8	1587.
5	1	5		1		9	1592.

XVI. BRITISH BRASSES.

1	1		2	2	^		1447.
2	1	2		11	^		1454.
3	1			2	^	9	1472.
4	1			2	2	8	1481.
5	1			2	2	2	1487.
6	1			2	2	2	1489.
7	1			2	2	2	1493.
8	1			2	2	2	1510.
9	1			2	2	2	1510.
10	1			2	2	2	1538.

XVII. BRITISH BELLS.

1	1			6			1516.
2	1	2	3	4			1523.
3	1			4			1540.
4	1			4			1546.
5	1			4		7	1587.

XIV. BRITISH MONUMENTAL, XIII-1537.

1	1	7	3	2	4	6	^	8	9	0	XIII-XIV.
2	1			2	5						1445.
3	1			2	5			8			1448.
4	1			2	5		7			0	1470.
5	1			2	5		^	8			1487.
6	1			2	5		^				1487.
7	1			2	5				9	0	1493.
8	1			2	5				9		1490.
9	1			2	5				9		1493.
10	1			2	5				9		1494.
11	1			2	5			8			1498.
12	1			2	5					0	1503.
13	1			2	5					0	1504.
14	1			2	5					0	1509.
15	1			2	5					0	1514.
16	1			2	5					0	1524.
17	1			2	5						1525.
18	1			2	5		^				1527.
19	1			2	5						1531.
20	1			2	5						1531.
21	1			2	5						1537.

XVIII. GERMAN. MONUMENTAL, 1388-1477.

[illegible]

XIX. GERMAN: MONUMENTAL, ETC., 1477-1495.

[illegible]

XXI. GERMAN MONUMENTAL, ETC., 1504-1520

1	1						1504.
2	1						1505.
3	1						1505.
4	1						1505.
5	1						1506.
6	1						1506.
7	1						1506.
8	1						1506.
9	1						1506.
10	1						1506.
11	1						1507.
12	1						1507.
13	1						1508.
14	1						1509.
15	1						1510.
16	1						1510.
17	1						1511.
18	1						1513.
19	1						1513.
20	1						1513.
21	1						1516.
22	1						1520.
23	1						1520.

XX. GERMAN MONUMENTAL, ETC., 1495-1503

1	1						1495.
2	1						1496.
3	1						1497.
4	1						1497.
5	1						1497.
6	1						1497.
7	1						1497.
8	1						1497.
9	1						1497.
10	1						1497.
11	1						1498.
12	1						1499.
13	1						1499.
14	1						1499.
15	1						1499.
16	1						1501.
17	1						1499.
18	1						1500.
19	1						1500.
20	1						1501.
21	1						1502.
22	1						1502.
23	1						1503.

XXII. GERMAN MONUMENTAL, ETC., 1521-1544.

[illegible]

XXIII. GERMAN SEALS, 1331-1453.

1	11		3	5				1331.
2	1		7					1351.
3	1		3		6	8		1368.
4	1		3		6		9	1369.
5	1			2				1405?
6	11	2						1412.
7	1	2		3				1425.
8	1	2					9	1429.
9	1		3					1433.
10	1		33					1433.
11	1		3		6			1436.
12	1			22				1440.
13	1			2				1444.
14	1			2				1444.
15	1			2				1444.
16	1			2		6		1446.
17	1			2		6		1446.
18	1			2				1450.
19	1			2				1450+.
20	1	2		2				1452.
21	1		3					1453.

XXVI. GERMAN SEALS, 1507-1527.

1	1				5	7		0	1597.
2	1			x	5				1514.
3	7				5				1517.
4	11						99		1519.
5	1				5	7			1527.

XXXVII. GERMAN: VARIOUS.

[illegible]

XXXVIII. GERMAN PAINTINGS, 1435-1508.

1	I		3	2	6	2	6	9	1435?
2	I		2	2	2	2	2	9	1446.
3	I		2	2	2	2	2	9	1449.
4	I		2	2	2	2	2	9	1483.
5	I		2	2	2	2	2	9	1487.
6	I		2	2	2	2	2	9	1488.
7	I		2	2	2	2	2	9	1491.
8	I		2	2	2	2	2	9	1493.
9	I		2	2	2	2	2	9	1498.
10	I		2	2	2	2	2	9	1492.
11	I	2	4	4	4	4	4	9	1503.
12	I		3	3	3	3	3	9	1504.
13	I		3	3	3	3	3	9	1506.
14	I		3	3	3	3	3	9	1506.
15	I		3	3	3	3	3	9	1507.
16	I		3	3	3	3	3	9	1507.
17	I		3	3	3	3	3	9	1507.
18	I		3	3	3	3	3	9	1507.
19	I		3	3	3	3	3	9	1507.
20	I	2	7	7	7	7	7	9	1508.
21	I		5	5	5	5	5	9	1508.

XXIX. GERMAN PAINTINGS, 1509-1529.

1	7				5				0	1509.
2	//				5				0	1510.
3	|||				5					1511.
4	|||				5					1511.
5	|||				5					1511.
6	|||				5					1511.
7	||	2			5					1512.
8	||	2			5					1512.
9	||	2			5					1512.
10	||				5					1514.
11	I				5					1514.
12	1				5					1515.
13	1				5					1515.
14	||				5					1515.
15	||				5					1516.
16	||				5					1519.
17	1				5				0	1520.
18	1	2			5					1526.
19	1	2			5					1528.
20	/	2			5					1528.
21	1	2			5					1529.

XXX. GERMAN PRINTED BOOKS,
WOODCUTS, ETC.

1	1				22	6	Λ	8	9	0	1464.
2	2				2	6	Λ	8	9	0	1470.
3	3	3			2	7	Λ	8	9	0	1470.
4	4				2		Λ	8		0	1471.
5	5	3			2	4	Λ	8	99	0	alt. Oct. 1473.
6	6	3			2	44	Λ	8	9	0	1474.
7	7	33			2	77	Λ	88	9	0	1477.
8	8	7			2	5	7	8	9	0	1479.
9	9				2			8			1481.
10	10				2			8			1482.
11	11	33			44	66	77	88	99	0	1488.
12	12				4	6			9		1496.
13	13				2				99		1499.
14	14				2				2		1499.
15	15				4				9		1499.
16	16	3			4	6	7	8	9	0	1500.
17	17	3			24	6	Λ	8	9	0	1503.
18	18				4	5				0	1504.
19	19	33			24	66	77	88	99	0	1507.
20	20				5	5		8		0	1508.

XXXII. GERMAN COINS, 1505-1514.

1	I			5				0	1505 Hungary.
2	I			7	6			0	1506 Goslar.
3	I			5	6			0	1506 Bavaria.
4	I			5	6			0	1506 Baden.
5	I			5	6			0	1506 Lübeck.
6	I			7		7		0	1507? Hungary.
7	I			5		7		0	1507 Frankfurt a. M.
8	I			5			8	0	1508 Isny.
9	I			7					1511 Bremen.
10	I			5					1512 Münsterberg.
11	I			5					1512 Lorraine.
12	I			5					1513 Salzburg.
13	I			5					1514 Hungary.
14	I			5					1514 Nördlingen.

XXXI. GERMAN COINS, 1484-1504.

1	I			4					1484 Austria.
2	I			4	6				1486 Austria.
3	I			2					1489 Hungary.
4	I			4					1489 Cologne.
5	I	Z		2					1492 Frankfurt a. M.
6	I	2		2					1492 Aachen.
7	I			2					1497 Brandenburg- Anspach.
8	I			2					1499 Bremen.
9	I								1500 Jülich u. Berg.
10	I								1501 Brandenburg- Anspach.
11	I	Z							1502 Lübeck.
12	I			2					1504 Mainz.
13	I			2					1504 Hesse.
14	I			4					1504 Brandenburg- Anspach.
15	I			2					1504 Salzburg.

XXXIII. GERMAN MEDALS.

1	I								1499.
2	I							9	1507
3	I								1508.
4	I							8	1512.
5	I								1514.
6	I								1521.

XXXIV. SWISS COINS

[illegible]

XXXV. LOW COUNTRIES: COINS, ETC.,
1474-1482.

1	I		Q	<			1474.
2	I		Q	<			1474.
3	I		Q	<			1474.
4	I		Q	<			1475.
5	I		Q	<			1475.
6	I		Q	<			1475.
7	I		Q	<			1476.
8	I		Q	<			1477.
9	I		Q	<			1477.
10	I		Q	<			1478.
11	I		Q	<			1478.
12	I		Q	<			1479.
13	I		Q	<			1480.
14	I		Q	<			1480.
15	I		Q	<			1481.
16	I		Q	<			1482.

XXXVI. LOW COUNTRIES:

COINS, 1482-1490.

[illegible]

XXXVII. LOW COUNTRIES:

COINS, ETC., 1491-1505.

1	I		X							9		1491.
2	I	Z	X							9		1492.
3	(	Z	4							?		1492.
4	I	Z	X							9		1492.
5	I		X							9		1494.
6	I		X							9		1494.
7	A		X		4					9		1495.
8	I		X			O				9		1496.
9	I		4				A			9		1497.
10	I		X4				7			9		1497.
11	I		4					8		9		1498.
12	I		X							9		1499.
13	I		X							99		1499.
14	I				S						0	1500.
15	I				7						0	1501.
16	I	Z			5						0	1502.
17	I		X								0	1504.
18	I										0	1505.
19	I				S	J					0	1505.
20	I				4						0	1505.
21	I					S					0	1505.

XXXVIII. LOW COUNTRIES:
COINS, ETC., 1506-1596.

[illegible]

XXXIX. LOW COUNTRIES: PAINTINGS.

1	1	Σ	3	8
2	1	Σ	3	
3	1		3	9 ²
4	1 1		3 3	x
5	1			x x
6	7	2		Q Q
7	1			Q
8	1 1			4
9	1 1			5
10	1	2	3	3
11	1	2		5

XL. FRENCH MEDALS.

1485.	8					1
1486.	8	6				2
1493.	9				3	3
1494.	9					4
1499.	9					5
1512.				5	2	6
1512.				5	2	7
1518.	5			5		8

XLII. ITALIAN PAINTINGS, 1521-1531.

1	11	2		4	8				1521.
2	1	22			5				1522.
3	1	2	3		5				1523.
4	1	2			5	6			1526.
5	(1)		3		5				1531.

XLIII. ITALIAN MAJOLICA.

1	1	22	2	4	4	8	99	0	mid. XV.
2	1			4	4	8	9	0	1487.
3	1			4	4	8	9	0	1489.
4	1			4	4	8	9	0	1491.
5	1			4	4	8	9	0	1493.
6	11			4	4	8	9	0	1503.
7	11	2		4	4	8	9	0	1508.
8	1			4	4	8	9	0	1509.
9	1			4	4	8	9	0	1513.
10	1			4	4	8	9	0	1513.
11	11			4	4	8	9	0	1518.
12	1			4	4	8	9	0	1524.
13	1			4	4	8	9	0	1526.
14	1			4	4	8	9	0	1528.
15	1			4	4	8	9	0	1529.
16	1			4	4	8	9	0	1530.

XL. ITALIAN PAINTINGS, 1472-1516.

1	1	2		4	7				1472.
2	1			4	7				1473.
3	1			44	7				1474.
4	1			4	7				1475.
5	1			4	77				1477.
6	1			4	7				1477.
7	1			4	7				1485.
8	1			4	7				1487.
9	1			4	7				1489.
10	1			4	7				1496.
11	1			4	7				1497.
12	1			4	7				1497.
13	1			4	7				1499.
14	1			4	7				1502.
15	1			4	7				1502.
16	11			4	7				1510.
17	11			4	7				1511.
18	11			4	7				1511.
19	1			4	7				1515.
20	11			4	7				1515.
21	1			4	7				1516.

XLV. ITALIAN MEDALS, 1498-1519.

1	I	Z		4	6					c. 1498.
2	I	Z								1499.
3	I			54						1502.
4	I		3	5						1503.
5	I			5						1505.
6	I		3							1513.
7	I			55						1515.
8	I			5	6					1516.
9	I		3	5		8				1538.
10	I		3	5					2	1539.
11	I		3	5					2	1539.
12	I			4						1510.
13	I	~		4						1512.
14	I			4					2	1519.

XLVI. ITALIAN: VARIOUS.

1	I	Z	3	4						1423.
2	II	~		4		7	8			1428.
3	I			4	5			9		1459.
4	I			4		7				1471.
5	I			4		>				1474.
6	I			4	5			9		1495.

XLIV. ITALIAN MEDALS, 1390-1497.

1	I									1390.
2	I								2	1393.
3	I			4		7			2	1417.
4	I			4	6					1446.
5				4		7				1447.
6	I			4			8			1448.
7	I								2	c. 1460.
8	I			4	6					1461.
9	I			4	6					1464.
10	I			4		7				1470.
11	I	Z		4		7				1472.
12	I			8		^			2	1479.
13	I			8		7			2	1479.
14	I			4			8			1481.
15	I			4			8			1481.
16	I			4	5		8			1485.
17	I			4	5		8			1485.
18	I			4			8		2	1489.
19	I			4	5				2	1495.
20	I			4		7			2	1497.

XLVII. ITALIAN PRINTED BOOKS, ENGRAVINGS, ETC.

1	I	Z	3	4	5	6 _{int}	7 _{int}	8	9	0	c. 1467
2	I	Z	3	4	5	6	7	8	9	0	c. 1477
3	I	2	35	4	5	6	7	8	9	0	1478.
4	I	2	3	4	5	6	7	8	9	0	1479.
5	I	2	3	4	5	6	7	8	9	0	1484.
6	I	2	3	4	5	6	7	8	9	0	1491.
7	I	2	3	4	5	6	7	8	9	0	1492.
8	I				7				9	0	1509.

XLVIII. INSCRIPTIONS FROM RHODES.

1	I			4	5	6	7	8	9	0	1447.
2	I			4	5		7		9	0	1457.
3	I			4	5			8	9	0	1459.
4	I			4	5				9	0	1489.
5	I	2		4	5				9	0	1490.
6	I			4	5				9	0	1492.
7	I			4	5				9	0	1494.
8	I			4	5				9	0	1495.
9	I			4	5		7		9	0	1497.
10	I	2			5					0	1502.
11	I				5	6				0	1506.
12	I				5				9	0	1509.
13	I	2			5					0	1511.
14	I				5						1515.
15	I				5		7				1517.
16	I				5			8			1518.
17	I		3		5				9		1519.
18	I	2			5					0	1520.

XLIX. GERMAN: SUPPLEMENTARY.

1	I	33					8			1383
2	I							9		1419.
3	I						8			1484.
4	I	Z						9		1492.
5	I	33						99		1493.
6	I					^		9		1497.
7	I						8			1498.
8	I								5	1514.

L. MISCELLANEOUS AND SUPPLEMENTARY.
XIII-XV CENT.

1	I	Z	3	4	5	6	7	8	9	0	c. 1260?
2	I	2	3	4	5	6	7	8	9	0	1276.
3	I	2	3	4	5	6	7	8	9	0	1326.
4	I	2	3	4	5	6	7	8	9	0	1342.
5	I	2	3	4	5	6	7	8	9	0	1391.
6	I									8	1410.
7	I						7				1417.
8	I										1444.
9	I										1451.
10	I										1451.
11	I	2									1452.
12	I	Z	3	4	5	6	7	8	9	0	1453.

LI. MISCELLANEOUS AND SUPPLEMENTARY.
XV-XVI CENT.

1	1	22	3	4	5	6	7	8	9	0	1461.
2	1			4		6	7				1467.
3	1			4			7			0	1470.
4	1			2				8			1485.
5	1			8				8	9		1489.
6	1	2	3	2	5	6	Λ	8	9	0	1491.
7	1	2		2					9		1492.
8	1	2		2					9		1492.
9	1			2			Λ		9		1497.
10	1			2			Λ		9		1497.
11	1			2				8	9		1498.
12	1			2					9		1499.
13	1		3		5						1513.
14	1	22			5						1522.
15	1	?			5	6					1526.
16	/		3		5					0	1530.
17	11		3		1						1531.

DESCRIPTION OF THE TABLES

TABLE I. MSS.: EARLIEST FORMS AND BOETHIAN APICES.

1. 976. Escorial d I 2. Codex Vigilanus, written in the year 976 in the monastery of Albelda near Logroño. See P. Ewald, *Neues Archiv der Gesellsch. f. ält. deutsche Geschichtskunde*, viii (1883), p. 357. The forms are described as the Indian figures, quibus designant unumquemque gradum cuiuslibet gradus. Quarum hec sunt form(e): 987654321. Ewald connects the form for 5 with the Roman V. Since he does not say that the year 976 is that of the Spanish era, we must assume that it is of the usual Christian era.

2. X c. Zürich, Universitätsbibl. (St. Gall MS.). See Pertz, *Archiv*, vii (1839), p. 364. Cp. G. Friedlein, *Gerbert, die Geometrie des Boethius und die indischen Ziffern* (Erlangen, 1861), pl. vi. 13. From fol. 50' of Angilberti carmen de Karolo M. Pertz describes these as the earliest Arabic numerals known to him.

3. 1077. Vat. 3101. A. Berthelot, *Mélanges de l'École franç. à Rome*, v (1885), p. 193.

4, 5. XI c. Erlangen (ex Altdorf), 288. See Friedlein's *Boethius* (1867), p. 397 (forms used in the text).

of the MS.); also Friedlein, *Gerbert*, &c., pl. vi. 1, 2; Woepcke, *Mém. sur la propagation des chiffres indiens* (Paris, 1863), p. 49 (after Mannert); H. Hankel, *Zur Gesch. d. Math.* (1874), p. 325; Cantor, *Math. Beiträge zum Kulturleben der Völker* (1863), p. 200. 6, 7. XI c. Chartres. See Chasles, "Aperçu hist. sur l'origine et le développement des méthodes en Géométrie" (*Mém. de l'Acad. roy. de Bruxelles*, xi, 1837, p. 467). See also Friedlein, *Gerbert*, &c., pl. vi. 3, 4. 8. XI c.-XII c. Reg. Vat. 1661. Liber Abaci. A. Berthelot, *Mélanges de l'École franç. à Rome* (1885), p. 193. Dated XI c. by Pertz, XII c. by Berthelot. 9, 10. XII c. (beginning). Paris, anc. fonds latin no. 7193 (ex Colb. 4313). De abaco. Natalis de Wailly, ii, pl. vii a. 11. XII c. (?) B.M., Arund. 343 (original burnt in 1865; the date cannot therefore be verified). From T. Wright, *Essays on Archaeological Subjects*, ii, p. 65. 12. XII c. Vat. 3123. A. Berthelot, *Mélanges de l'École franç. à Rome* (1885), p. 193. 13. XII c. (2nd half). Bibl. Alessandrina (Rome), no. 171, fol. 1. The apices of Boethius used without abacus, and with position values. E. Narducci, *Mem. Accad. Lincei*, Cl. sci. fis. &c. (1877), p. 503 f. 14. c. 1200. Louvain. See Lethaby, *Proc. Soc. Ant.* 1906 (xxi), p. 201. 15. c. 1200. Paris. MS. Fonds St. Victor 533. Regula Abaci. See Chasles in *Comptes Rend. de l'Acad. des Sciences*, xvi (1843), p. 238. 16, 17. Paris, 7377 c and 7185. Boethius. These series have been published by Cantor in *Zeitschr. f. Math. u. Physik*, iii, pl. iv, and in his *Math. Beiträge zum Kulturleben der Völker* (1863), p. 206 (fig. 41). The variation between the facsimiles throws doubt on their accuracy. Cp. also Friedlein, *Gerbert*, &c., pl. vi. 5 and 6. Date and provenance are not stated. 18. Date not ascertained. From a MS. belonging to Dr. Mead. See *Philosophical Transactions*, 1735, plate ii (at p. 122). 19, 20. XV c. Vat. 4539: table following letter to Constantine on the abacus; and forms from text of Liber Abaci. A. Berthelot, *Mélanges de l'École franç. à Rome* v (1885), p. 193. 21. Temp. Leonis X. B.M., Lansd. 842 B, fol. 57 b. Italian. De ratione abaci.

TABLE II. MSS.: XII-XIII CENT.

1. XII c. (early). Vat. 1890, f. 140; fragment of Conradi Urspergensis chronicon, probably written in neighbourhood of Salzburg. Pertz, *Archiv d. Gesellsch. f. ält. deutsche Geschichtskunde*, v (1824), p. 160 and pl. i. 4. Wattenbach, *Anleitung zur latein. Paläographie*¹, p. 102. 1. Prou, *Manuel*, p. 156. 2. 1143. Vienna, Bibl. Palat. Computus. T. Sickel, *Mon. Graph.*, Fasc. viii, Tab. 16; *Wiener Sitzungsber.* xxxviii. 171. 3. End of XII c.—beg. of XIII c. Munich, cod. lat. 14733 (cod. Emmeran. G. 117). Böhmer, *Fontes rer. Germ.* iii, p. lxxv; Pertz, *Mon. Germ.* SS. xvii, p. 578 and plate at p. 184; Wattenbach¹, p. 102. Written by Hugo of Ratisbon, who appears as a witness 1207-1216. 4. c. 1200. Heidelberg (Salem), ix. 23. Cantor, *Zeitschr. f. Math. u. Physik*, x. 1; Wattenbach¹, p. 102. 5. XII c. (end). W. Schum, *Exempla Codicum Amplonianorum Erfurtensium* (Berlin, 1882), no. xiii, p. 7. From the astronomy of Albumazar. Probably German. 6. XII c. (second half). Berlin, cod. lat. fol. 307, ff. 6, 9, 10, 28. Astronomical tables. French. See Bethmann in Pertz, *Archiv*, viii. 832; Wattenbach¹, p. 103; V. Rose, *Verzeichnis d. lat. Hdschr. der kgl. Bibl. zu Berlin*, ii, p. 1177, no. 956. The figure which is given by the earlier authorities as 2 is interpreted by Rose as 4, and vice versa. So far as the 2 is concerned, the earlier interpretation is confirmed by the preceding MS. in this table and by Arabic analogy. Dr. Regling has very kindly examined the MS. for me, but this point was not in question at the time.

TABLE III. MSS.: XIII CENT.

1. XIII cent. (1st half). Trinity Coll., Camb. (M. R. James, *Catal.* ii, no. 940, p. 355). The numerals are given under the words *Igin*, *Andras*, *Ormis*, &c., with the Roman equivalents written after each. From drawing by Mr. Z. N. Brooke. 2. c. 1230-50. B.M., Eg. 2261, f. 225 b. Algorism. English. 3. XIII c. B.M., Add. 25031. English. 4. 1246. B.M.,

Royal 8 A. viii, f. 105. Note of purchase of the book. English. 5. XIII c. (about middle). B.M., Royal 3 A. v, f. 67 b. English. Dated by some to late XIII or early XIV. 6. XIII c. (2nd half). B.M., Arund. 292, f. 107 b. English. The numerals are drawn laboriously, as if they were unfamiliar. 7. XIII c. (2nd half). B.M., Arund. 332, f. 68. Joh. de Sacrobosco. English (Durham). 8. XIII c. (after 1264). B.M., Add. 27589, f. 28. Algorism. English. 9. c. 1280. S. C. Cockerell Collection, English Bible (probably York). Cp. *Proc. Soc. Ant.* xxi (1906), p. 201 (where the forms have been somewhat schematized). 10. XIII c. (late). B.M., Royal 12 E. xxv, ff. 32-59. This scribe uses Roman numerals for all above 9, also sometimes ix. The early form of 2 occurs only once (f. 33). Probably English. 11. XIII c. (late). B.M., Harl. 2385, ff. 26-31 b. Probably English. 12. XIII c. (late). B.M., Royal 12 E. xxiii, f. 2. English. 13, 14. XIII c. (end). B.M., Royal 12 C ix. Joh. de Sacrobosco, *Computus*. Probably English. The diagrams (14) are in a different hand, perhaps that of a more skilled mathematician than the copyist of the text.

TABLE IV. MSS.: XIII CENT. (*continued*).

1. XIII c. (beg.). B.M., Royal 8 B. xix. English or French. Contemporary quire-numbering. The first 13 quires (of 8 leaves each) are numbered i, ii, . . . xiii on the last page of each quire; then come 410 = 14 (f. 112 b), 510 (f. 120 b), 610 (f. 128 b). 2. XIII c. (early). B.M., Royal 15 B. ix, f. 77 b. Algorism. English or French. Note the Roman V. By some authorities dated as early as XII cent. 3. XIII c., before 1271. Paris, anc. fonds latin, 7198; kalendar on f. 8. French. N. de Wailly, *Él. de Pal.* pl. vii. Cp. Lethaby, *Proc. Soc. Ant.* 1906 (xxi), p. 201. 4. XIII c. (end). B.M., Harl. 3647, ff. 2 foll. (*computus manualis*), 17 (*algorismus*). French. 5, 6. XIII c. (about end). B.M., Harl. 4350, ff. 16, 6 b, &c. French. 7. 1256. Paris, lat. 16334 (Analysis and index of works of St. Augustine). Prou, *Manuel*, pl. xviii. No instance of o occurs in the facsimile. 8. XIII c. Siena (Bibl. Com.). *Anzeiger für Kunde d. Deutschen Vorzeit*, xviii (1871), p. 261; W. Wattenbach, *Anleitung zur lateinischen Paläographie*⁴, p. 102, 5; Prou, *Manuel*, p. 156. 9, 10. 1272. B.M., Harl. 531, ff. 1, 7, 30, 32 (dates and numerals in text of Sacrobosco). German. 11. c. 1260-1270. B.M., Royal 12 E. iv. Provenance uncertain. Evidently an exercise in ornamental figuring. A peculiar form of 2 occurs on f. 4 b. 12. XIII c. Libri, Catalogue (Sotheby's, 1859), p. 145, no. 665, pl. xxiv and xxix. *Mathematici veteres*. Not of 1170 as stated. Probably English. Mixture of Arabic and Latin numerals. Wattenbach⁴, p. 102.

TABLE V. MSS.: XIII-XIV CENT.

1. XIII c. (end). B.M., Royal 7 F. viii, ff. 182-188. Works of Roger Bacon. English, after 1268, probably towards end of XIII c. Astronomical tables. More than one system of numerals used; it would appear that we have tables compiled from various sources. 2. Beginning of XIV c. (temp. Edw. I-II). B.M., Cotton Vesp. A. ii, fol. 2. "Calend. Rogeri Baconis." Probably English. Might conceivably have been written in the closing years of the XIII cent., but beginning of XIV is much more probable. 3. Late XIII or early XIV (more probably the former). B.M., Royal 8 C. iv, f. 36 b. Joh. de Sacrobosco. Probably English. 4. c. 1300. B.M., Add. 35179. English. 5. c. 1300. B.M., Royal 12 F. xv, f. 143. Probably English. Evidently an exercise in writing the numerals. 6. Early XIV c. (possibly late XIII c.). B.M., Cotton Vit. A. i, f. 25 b. Carmen de Algorismo. English. 7. Late XIII or beg. XIV c. B.M., Royal 10 B. vii. Fishacre. English. See ff. 6 b foll., 226 b foll., 285, 327, 380. Shows the transition from the old to the modern 2. 8. End of XIII or beg. of XIV c. B.M., Harl. 505, ff. 5 b-14. English. 9. End of XIII or beg. of XIV c. B.M., Harl. 3735, f. 51. Algorism. Probably French. 10. XIII-XIV c. B.M., Add. 30380. Joh. de Sacrobosco. German.

TABLE VI. MSS.: XIV CENT. ENGLISH.

1. c. 1320-1330. B.M., Royal 12 E. xxi, ff. 74 foll. English. 2. XIV c. (early). B.M., Sloane 2478, ff. 15, 15 b, 27, 35 b. English. 3. XIV c. B.M., Royal 13 B. vi. Pagination. Later form of 2 occurs on f. 302. English (Lincoln). 4. XIV c. (early). B.M., Royal 12 E. 1, ff. 159-165 b. English. 5. 1334. B.M., Royal 2 C. v. Note (English) of the lending of the volume (Nich. de Gorram, Postille in Psalterium) to Mag. Th. Duraunt. 6. XIV c. (early). B.M., Harl. 13, ff. 31, 75. Astronomical tables. English. 7. c. 1330-1340. B.M., Harl. 7322, ff. 152 foll. English. 8. XIV c. B.M., Harl. 3353, f. 76 b. Algorism. English. 9. XIV c. (mid.). B.M., Harl. 2316, ff. 2 b-11 b. English. 10. XIV c. B.M., Cotton Cleop. B. vi, f. 237. Sacrobosco. Probably English. 11. XIV c. B.M., Royal 7 D. xxi, f. 174 b. Algorism. English. 12. c. 1350, probably. B.M., Royal 12 F. xvii. English. 13, 14. Late XIV or early XV. B.M., Cotton Vesp. E. vii, f. 5 (Diameter terrae); f. 9, Kalendar by Thomas Somur from nativity of Richard II; therefore perhaps soon after 1367, but may be early XV. 15. 1380. B.M., Royal 2 B. viii, ff. 1, 2 b. Psalter, with Kalendar by John Somour, composed 1380. English. 16. 1381. B.M., Burn. 310. Gesta Britonum of Nennius, written at Finchale by a Breton, Guillelmus, du Stiphel. English. 17. XIV c. (late). B.M., Harl. 80, f. 46 b. English. 18. XIV c. (first half). Cod. Magl. Cl. vii, no. 17, f. 33 b; on a tablet held by figure of 'Arismetica'. Perhaps English. Formerly assigned to XI c. (!). C. Paoli, *Arch. Stor. Ital.* (IV Ser., vol. 7) 1881, pp. 277-280.

TABLE VII. MSS.: XIV CENT. FRENCH, GERMAN, ITALIAN, ETC.

1. XIV c. (early). B.M., Burn. 275, f. 667 (= 336). Illumination (first row). French. Other forms (second row) in the text passim. 2. 1301 (just after). B.M., Royal 12 C. xvii. Algorism. French. 3. 1311. B.M., Sloane 3097, ff. 61-63 and elsewhere. Liber de conservacione vite humane, completed die innocencium 1311 (f. 61). French. 4. XIV c. (late). Paris, anc. fonds latin 7277. N. de Wailly, ii, pl. vii c. M. Omont writes that the MS. is after 1367 and before 1420, and was written in the N. of France or neighbourhood thereof, probably at Tournai. 5. XIV c. (early). B.M., Add. 11284, ff. 2-8. Written at Cambron Abbey in Flanders. Both forms of 2 occur, but the old form more commonly. 6. 1303. Sigmaringen MS. *Anzeiger f. Kunde d. Deutschen Vorzeit*, 1867, p. 239; Wattenbach ⁴, p. 102. 7. XIV c. (early, after 1303). B.M., Arund. 268, ff. 41 b-67. Mathematical treatise. German. 8. c. 1350. Salzburg MS. (cod. Iuvaviensis S. Petri v^a 7, fol. 124 b). Treutlein, *Gesch. uns. Zahlzeichen*, plate, no. 8. 9. XIV c. (end). Berlin, lat. fol. No. 322. Wattenbach ⁴, p. 102, no. 7; Prou, *Manuel*, p. 156. 10. XIV c. (early). B.M., Royal 12 C. xviii. Astrology. Provenance uncertain (some northern country). 11. c. 1325-30. Icelandic. Algorismus. Hauksbók, ed. by Finnur Jonsson, p. 417. 12. 1315 or 1325. Endorsement on an English warrant dated Feb. 4, 1325; written (13 x 5) by an Italian. Possibly a mistake for 13 xx 5. *Arch. Journ.* vii, p. 85. 13. 1327. B.M., Arund. 115. Italian. 14, 15. XIV c. B.M., Harl. 3814, ff. 4, 3 b, 5 b, 11 b. Probably Italian. 16. XIV c. (beg.). Florence, Bibl. Naz., fondo Conventi soppressi, Badia Fior., 2616. C. 1, from which MS. Boncompagni edited the Liber Abaci of Leonardo of Pisa. *Anzeiger f. Kunde d. Deutschen Vorzeit*, 1871, 261, and private communication from Sig. Enrico Costa. 17. 1382. B.M., Add. 37495. Italian. Geoffrey de Vinsauf.

TABLE VIII. MSS.: XV CENT. ENGLISH.

1. XV c. (beg.). B.M., Cotton Vit. C. xiv, ff. 124 foll. English. Ornamental style. 2. XV c. (early, Hen. V at latest). B.M., Royal 12 E. xxii. English. The 1 is exceptional. 3. c. 1410-1415. B.M., Add. 33784, ff. 4-7. English. 4. XV c. (early). B.M., Add. 24194. Chapter numberings and index. English. 5. XV c. (early). B.M., Harl. 5369, f. 270 b. 6. XV c. (1st half). B.M., Add. 17723. English. 7. XV c. (1st half). B.M.,

Harl. 1288, ff. 34-59. English. 8. 1418-1431. B.M., Eg. 889, f. 52 b. English. 9. XV c. (prob. 1st half). B.M., Sloane 513, f. 58. English. 10. 1431. B.M., Harl. 937. Kalendar. English. 11. After 1431. B.M., Harl. 5396, ff. 207 b foll. English. 12, 13. 1429-1446. B.M., Add. 7096, ff. 71 ff. (Curteys, *Bury St. Edmunds Register*) and Add. 14848 (do., index). English. 14. c. 1445. B.M., Harl. 3742, f. 227 b (Apologetica defensio astronomice veritatis, by Peter Card. Cambrai), ff. 238 b, 239 (John of Norfolk in artem progressionis). English. 15. 1445. B.M., Add. 11814, at end. English. 16, 17. 1449, 1454. B.M., Royal 10 B. vii. Cautions. English. 18. c. 1456. B.M., Sloane 4029, ff. 1-183 b. English. 19. XV c. (mid.). B.M., Sloane 1616, ff. 125 b, 129 b, and chapter numberings. Probably English. 20. XV c. (mid.). B.M., Royal 6 E. iii. Pagination. English. Cp. Sloane 1616. 21. XV c. (mid.). B.M., Arund. 384, ff. 95 foll. English. 22. XV c. (mid.). B.M., Cotton Jul. D. vii. f. 45 b. English.

TABLE IX. MSS. : XV CENT. ENGLISH, ETC.

1. XV c. B.M., Add. 24059, f. 22 b. Algorithm. English. 2. XV c. B.M., Royal 12 E. i, f. 8 b. Algorithm, doubtless English. 3. XV c. (c. 1450-60). B.M., Sloane 213, f. 124. English accounts-table. 4. XV c. B.M., Royal 10 B. ix, ff. 61 b, 67, 68, 122, 122 b. Paragraph numbering and dates (1451-1459). English. 5. c. 1460. B.M., Royal 8 D. i, f. 216. English. 6. 1467. B.M., Royal 6 D. ii. English. Cp. Casley, *Catalogue*, pl. xvi. 7. 1482-1485. B.M., Royal 12 G. i. Astronomical tables by Lewis Caerleon. English. 8. 1482 (?). Univ. of Edinburgh. Scotch (?) Kalendar, calculated for 1482. J. Leslie, *Philosophy of Arithmetic*, p. 115. 9. 1483, 1485, 1488. B.M., Royal 7 E. v. Cautions, English. 10. 1488. B.M., Royal 14 C. vii, fly-leaf. Cp. Casley, pl. xvi. English cursive. 11. Betw. 1427 and 1460. Paris, anc. fonds latin, no. 7295, f. 86 b. Astronomical MS. (provenance not stated). N. de Wailly, ii, pl. vii d. 12. XV c. (1st half (?)). Kalendar. From T. Wright, *Essays*, ii, p. 71, no. 3. The reference "B.M. Sloane 2927" there given is wrong, and I have not been able to find the MS. 13. 1454. "Ex cod. S. Germani, no. 531." Mabillon, *de Re Dipl.* t. xv, p. 373 (ed. 1681). 14. 1460. "Ex cod. S. Germani, de imit. Chr. Magistri Iohannis Gerson." Mabillon, *ibid.*

TABLE X. MSS. ETC. : XV CENT. GERMAN.

1. c. 1422. B.M., Add. 15107, f. 207 b, &c. Written at Lauben, near Görlitz in Saxony, in 1422. 2. c. 1420. B.M., Add. 15107, f. 215. Written at Lauben, near Görlitz in Saxony, about 1420. 3, 4. Betw. 1426 and 1430. B.M., Add. 15108, ff. 4 b, 90. German (Erfurt). 5. 1430. Libri, *Catalogue of the collection of manuscripts* (Sotheby's, 1859), No. 936. German, 26 June, 1430. 6. c. 1442. Plimpton Coll. Sacrobosco. German, copied by Hairicus Muglinchik. The numerals are from a coloured illustration, representing Algorismus teaching a pupil the numerals from a sort of hornbook. D. E. Smith, *Rara Arithm.* p. 450 and pl. viii. 7. XV c. B.M., Add. 15107, ff. 36, 36 b. German. 8. XV c. B.M., Harl. 3843, f. 119. Sacrobosco. German. 9. XV c. B.M., Harl. 3843, ff. 25 a, 39 b, 40, 53 b, 99 b. Probably about 1458 (which date occurs frequently). The fork to the right-hand leg of the four is unusual. German. 10. 1468. B.M., Arund. 148. German (Erfurt). Postille Nicolai de Lyra, ff. 106 b, 192, 236 b, 283 b, 391 b. On fol. 192, 1458 is perhaps a blunder for 1468, as all the MS. seems to be contemporary. 11. c. 1463-1473. B.M., Add. 19909, f. 236 b. German. 12. 1473. B.M., Add. 19909, f. 250 b. German. Herolt, *Promptuarium*. 13. 1480. Admonter Hüttenbuch. German. *M.C.C., N.F.* xx, p. 236. 14. XV c. Heidelberg (Pal. Germ. 342). German. From Wattenbach⁴, p. 102, no. 8. Cp. Prou, *Mannuel*, p. 156. Contemporary pagination. 15. 1493. Drawing by Albert Dürer, Albertina. Child Jesus holding globe. Lippmann, 450. 16. 1494. Drawing by Albert Dürer, Albertina. Bacchanal rout.

Lippmann, 454. 17. 1494. Drawing by Albert Dürer, Albertina. Battle between Tritons (after Mantegna). Lippmann, 455. 18. 1495. Drawing by Albert Dürer, Albertina. Venetian lady. Lippmann, 459. 19. 1497. B.M., Royal 6 A. viii, f. 121. Cp. Casley, pl. xvi. German. 20. 1498. Drawing by Albert Dürer, Albertina. Armed horseman. Lippmann, 461. 21. 1500. Drawing by Albert Dürer, Albertina. Nürnberg lady in ball dress. Lippmann, 464.

TABLE XI. MSS.: XV CENT. ITALIAN.

1. c. 1400-1416. B.M., Royal 12 D. vii. Italy or S. France (script looks Italian, initials and borders rather French). 2. 1427. B.M., Harl. 3161, f. 143 b. Bologna: Lactantius. 3. c. 1400-35. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 440. 4. 1440. B.M., Add. 14095, date at end. Italian. 5. 1444. B.M., Add. 18041, ff. 204 b, 205. Italian, begun at Perugia, finished at Pavia in 1444. 6. c. 1430. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 448. 7. c. 1456. Plimpton Coll. Italian Arithmetic. D. E. Smith, *Rara Arithm.* p. 460. 8. XV c. B.M., Add. 8784, ff. 50 b., 51. Italian. 9. XV c. B.M., Eg. 853. Italian. 10. XV c. (first half). B.M., Add. 10363. Italian. Treatise on Arithmetic. On ff. 223-229 are tables from 1418-1444. May have been written as early as 1418. 11. 1473. Left-handed. Drawing by Leonardo da Vinci (landscape). Uffizi. 12. 1478. Left-handed. Drawing by Leonardo da Vinci (Heads). Uffizi. 13. c. 1475. Plimpton Coll. Italian Arithmetic by Luca da Firenze. D. E. Smith, *Rara Arithm.* pp. 469, 471. 14. c. 1476. B.M., Add. 22317. Italian Kalendar, ff. 90 b foll. In this MS. the S-shaped form of five occurs exceptionally (e.g. f. 98, f. 103). 15. 1478. B.M., Add. 18041. Letter (Italian) from Pavia, inserted at f. 39. 16. 1480. B.M., Add. 35310, f. 366. Italian Breviary, written at Piacenza. 17. c. 1490. Plimpton Coll. Italian treatise on elementary mathematics. D. E. Smith, *Rara Arithm.* p. 476.

TABLE XII. MSS.: XVI CENT.

1. 1503. Owner's inscriptions in copies of the Confessionale of S. Antonino of Florence (of 1499) and Lochmaier's Parochiale (of 1493), in the Wolgaster Bibliothek, Greifswald (no. 456). In the second case the date is written 1053. Tracings communicated by Prof. Pernice. 2. 1504. Drawing by Albert Dürer, formerly in the Lanna Collection. Adam and Eve. From the Dürer Society's Reproduction. 3. 1505-1510. Various dates in vol. ii of the Works of Johann Butzbach (Bonn MS. 356). Fol. 1, incipit feliciter 1506 (for 1506); 48^b, a^o dñi 1560; 138^{ba}, 1505; 144^{ab}, 1508 (= 1510). Drawings communicated by Dr. H. Willers. See Böcking, *Opera Huttleri*, Supp. vol. ii, p. 438. 4. 1508. B.M., Royal 2 B. xiii. Note on fly-leaf. English. Casley, pl. xvi. 5. 1510. B.M., Royal 7 E. v. Caution. English. 6. 1513. Drawing by A. Dürer, Vienna Hofmuseum, Ambraser Sammlung (Siren as candle-bracket). *M. C. C.* viii, p. 127. 7. 1514. Drawing of a crozier (German). See *M. C. C.* iii, p. 190 and pl. vi. 8. c. 1515. Drawings attributed to Andreas Coner (Roman architectural sketchbook) in the Soane Museum. *Papers of the British School at Rome*, vol. ii (ed. T. Ashby). The hand is Italian. 9. 1517. Drawing by Wolf Huber in the Guildhall Library, London. From the Vasari Society's Reproduction, part III, 28. 10. 1523. Codex des Znaymer Stadtrechtes. Illuminated. *M. C. C.* xv, p. 92 and pl. i. 11. c. 1524. Quodlibetarius, MS. Erlangen, no. 1463. From Friedlein, *Gerbert*, &c., pl. vi. 12. 1545. Plimpton Coll. Italian, written by "Ludovicho Alt de Salispurga". Business arithmetic. D. E. Smith, *Rara Arithm.* p. 485. The numerals are rather Italian than German. 13. c. 1560. Plimpton Coll. Italian commercial arithmetic (Florentine). D. E. Smith, *Rara Arithm.* p. 489. With the recumbent 8 compare the forms in a MS. of 1684 (*ib.* p. 441), or in the date 1628 as signed by the Dutch painter Pieter de Grebber on a picture at Stockholm (no. 448).

TABLE XIII. MSS.: GREEK.

1. XIV c. Neophytus. From Friedlein, *Gerbert, &c.*, pl. vi. 9. See P. Tannery, *Le scholie du moine Néophytos sur les chiffres Hindous. Rev. Arch.* iii. sér. 5 (1885), pp. 99-102, where this note on the ἀριθμοὶ ἰνδικοὶ or περσικοὶ is described from two Greek MSS. at Paris, 1928, f. 15 (XV cent.), and 2350, last folio (XVI cent.). 2. XIV c. Maximus Planudes. Friedlein, *Gerbert, &c.*, pl. vi. 10, from an excerpt. On the MSS. of the ψηφοφορία see C. I. Gerhardt, *Das Rechenbuch des M. P.* (Halle, 1865); cp. Tannery in *Rev. Arch.* 1886 (i), pp. 357 ff. 3. XIV c. Cod. Marc. 534 (formerly 303). Maximus Planudes, ψηφοφορία. Villosion, *Anecd. Gr.* ii, p. 153 and plate at p. 267. This and the next MS. were kindly examined for me by Mr. W. Miller. They come from Cardinal Bessarion's library. 4. XV c. Cod. Marc. 639 (formerly 323). Maximus Planudes, ψηφοφορία. From Villosion, *Anecd. Gr.* ii, p. 153 and plate at p. 267. Must be earlier than c. 1470, since it was in Cardinal Bessarion's library. 5. Planudes, according to Tannery, *Rev. Arch.* 1886 (i), p. 359. 6. XV c. Cod. Marc., fondo Nani, 255, fol. 182 b. Scholium (in same hand as text) on Tetrabiblos of George Pachymeres. *Rev. Arch.* 1886 (i), p. 357. 7. XV cent. Paris, fonds grec 2428. Tannery, *Rev. Arch.* 1886 (i), p. 359. 8. XV c. Paris, supp. grec 387. Copied from a XIV c. MS.? *Rev. Arch.* 1886 (i), p. 359. The forms are purely Western, but for the inverted 7.

TABLE XIV. BRITISH MONUMENTAL, ETC.

1. Series of numbers from Resurrection images on West front of Wells. *Somersetshire Archaeol. and Nat. Hist. Soc. Proc.* xxxiv (1888), p. 62; *Proc. Soc. Ant.* 1906, xxi, p. 201. Mr. Lethaby has shown that the 2 is of the 7 shape; the numerals cannot therefore be later than the early XIV cent. The only difficulty is caused by the second form of 5. This is hardly possible in the XIII-XIV century. It may be a misread 3 or 6, and should be re-examined. 2. 1445. Tower of Heathfield Church, Sussex. *Journ. Brit. Arch. Assoc.* ix, p. 433; Wright, *Essays*, ii, p. 76. Is this contemporary? The form of 5 seems very modern for the date. 3. 1448. On wooden lych-gate, Bray Church, Berks. *Arch. Journ.* 1850, p. 75. 4. 1470. Elgin Cathedral. Tomb of first Earl of Huntly in St. Mary's aisle. Rubbing in Library of Soc. of Antiquaries. Communicated by Mr. J. Cooper Clark, of Ladyhill. Both 5 and 7 look foreign. 5. 1487. Belfry door of Piddletrenthide, Dorset. Wright, *Essays*, ii, p. 85. 6. 1487. Wooden door at Arminghall. Wright, *Essays*, ii, p. 77. 7. 149? Beverley, on pavement near S. side of Earl of Northumberland's Monument. Gough, *Sep. Mon.* ii, 2, p. 309. The last figure is broken away. 8. 1490. Colchester. The lower part of the 4 being defaced, this has been read as 1090. Wright, *Essays*, ii, p. 78. 9. 1493. Stone in wall of cottage in remains of episcopal manor-house at Bishop's Waltham, Hants. *Arch. Journ.* 1850, p. 76. 10. 1494. Tower of Hadley Church, Middlesex. Wright, *Essays*, ii, p. 79. 11. 1498. On a shield in the hall of Milton Abbey. Wright, *Essays*, ii, p. 86. 12. 1503. St. Cross. On stone. This occurs twice, once in the Porter's Lodge, once in the "Nun's Room". *Arch. Journ.* 1850, p. 76; *Journ. Brit. Arch. Assoc.* ix, pl. xxxiv. 13. 1504. Arms of James IV of Scotland. On a buttress projecting from the W. side of the crowned tower of King's College, Old Aberdeen. *Proc. Soc. Ant. Scot.* xxiii, pl. i (p. 80). Communicated by Mr. W. Kelly. 14. 1509. Stone from London Bridge, found in 1758. Wright, *Essays*, ii, p. 80. 15. 1514. Milton Abbey Church. Wright, *Essays*, ii, p. 86. 16. 1524. On tabernacle at Kinkell Church near Inverurie. AZO. DZI. 1524. NEORARE A. G. The initials are those of Alexander Galloway, "Official" of Aberdeen and Rector of Kinkell. *Trans. Aberdeen Ecclesiol. Society* 1889 (1890). From a photograph communicated by Mr. W. Kelly. There is or was another stone dated 1525 in the same place. 17. 1525. On the screen of Winchester Cathedral. *Journ. Brit. Arch. Assoc.* ix, p. 434. 18. 1527. Stoke Charity, Hants; Waller tomb. *Ib.* p. 435. 19. 1531. Stone from E. battlements of vestry of church at Enfield. Gough, ii (1).

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p. 140, pl. xlix*. 20. 1534. Beam in roof of Eccleston Church, Lancs. Communicated by Mr. C. R. Peers. The assimilation of numerals to letters is very marked. 21. 1537. Wooden seat in Aldham Church, Suffolk. T. Wright, *Essays*, ii, p. 81.

TABLE XV. BRITISH MONUMENTAL, ETC. (*continued*).

1. 1545. Scratched on stone in choir, Winchester. *Journ. Brit. Arch. Assoc.* ix, p. 435. 2. 1552. From the Half-Moon Inn, near Magdalene College, Cambridge. T. Wright, *Essays*, p. 82, after Gough. 3. 1577. Date 1573 on tomb of Robert Blounte, Astley, Wores., made in 1577 by John Gildon of Hereford. 4. 1587. Slab of a member of the Walweyn family, in floor of S. aisle of Colwall Church, Herefordshire. 5. 1592. Ashford Church. T. Wright, *Essays*, ii, p. 82, after Gough.

TABLE XVI. BRITISH BRASSES.

1. 1447. Thomas Fortey, Northleach, Glo'ster. From rubbing in the Soc. Ant. Library. 2. 1454. Eleanor Coke, wife of William Bramble and Richard Warbulton, Ware, Herts. From rubbings in the Soc. Ant. Library and by Mr. C. R. Peers. 3. 1472. Ingylton, Thornton, Bucks. From a rubbing in the Soc. Ant. Library. Cp. T. Wright, *Essays*, ii, p. 77. 4. 1481. Wm. Yelverton, Rougham, Norfolk. From J. S. Cotman. 5. 1487. Sir Wm. Pecche, Lullingstone, Kent. From rubbing in the Soc. Ant. Library. Cp. Belcher, i, pl. lxxv, no. 145. 6. 1489. Thos. Gilbert, Allhallows, Barking. From rubbing in the Soc. Ant. Library. Cp. T. Wright, *Essays*, ii, p. 78. 7. 1493. Houghton Conquest, Beds. From rubbing in the Soc. Ant. Library. 8. 1510. John and Roger Yelverton, Rougham, Norfolk. From Cotman. 9. 1510. Wm. Bysse, Fellow of Merton. Merton College Ante-chapel, Oxford. From a rubbing. 10. 1538. Thomas Bullen, Hever. Rubbing by Mr. C. R. Peers.

TABLE XVII. BRITISH BELLS.

1. 1516. Isleham, Cambs. From a rubbing by Mr. H. B. Walters. 2. 1523. Leaden Roothing, Essex. 3. 1540. Stanstead Mountfitchet, Essex. 6th bell, now recast. From a rubbing belonging to Mr. H. B. Walters. 4. 1546. Felstead, Essex. Clock bell. From a rubbing belonging to Mr. H. B. Walters. 5. 1587. Turton Tower bell. From *Old South-East Lancashire*, vol. i (1880), p. 122.

TABLE XVIII. GERMAN MONUMENTAL, ETC.¹

1. 1388. Ulm. Tombstone of Cunrat Riter. *Verhandl. des Vereins f. Kunst u. Alterthum in Ulm u. Oberschwaben*, vi (1874), pp. xiv f.; *Anzeiger*, 1876, 35; Wattenbach, *Lat. Pal.*, p. 101. The stone was found some feet deep in a cemetery which had not been used since 1530. 2. 1406. Salteins, Vorarlberg. Inscription on tabernacle. *M.C.C., N.F.* xxii, p. 31. The date is written +146+. 3. 1414. Pettau. Inscription on a bracket. *M.C.C., N.F.* vi, pp. cxii, cxiv. 4. 1439. Nürnberg. Lorenzkirche. *Anzeiger*, 1861, 49. 5. 1441. Freising. Choir-stalls from Stiftskirche of St. Veit. *M.C.C.* viii, p. 250. An excellent instance of the sort of date that can be read 1001. 6. 1446. Pettau. Stall. *M.C.C., N.F.* vi, p. cxliv. 7. 1451. Wiener Neustadt. Gravestone of Anna Roll, wife of Johann Roll, who was Bürgermeister of Neustadt 1467-1471. Ströhl, *Herald. Atlas*, text to pl. lxvi, fig. 4. The date of Roll's tenure of office does not of course prove that the date is 1471 rather than 1451. 8. Würzburg. Dom. Coat of arms of Jörg von Bebenburg. Salver, *Proben des hohen Deutschen Reichs-Adels*, Taf. XVII. 65. 9. 1454. Grätz. Tombstone in Franciscan monastery. *M.C.C., N.F.* xvi, p. 75. 10. 1454. Nördlingen. Over porch of tower of Georgenkirche. *Anzei-*

¹ See also Table XLIX.

ger, 1861, 153. The reading 1474 has been suggested; but this form of 7 is not likely at so early a date (see nos. 15–22 in this Table, and 1, 2, 13, 14 in the next). 11. 1458. Ulm. Oak singing-desk by Jörg Sürlin. *Anzeiger*, 1861, p. 49. See *Berichte des Kunst- und Alterthumsvereins von Ulm und Oberschwaben*, 1844, p. 17. 12. 1464. Villach. On choir-stall in church. *M.C.C.* xv, p. 173; cp. iii, p. 127. 13. 1465. Feldkirch. On a house in Marktgasse. *M.C.C.*, *N.F.* viii, p. lxxi. 14. 1466. Friesach. Stone built into a house. *M.C.C.*, *N.F.* xxii, p. 169. 15. 1467. Wiener Neustadt. Gravestone of Empress Eleonora in Cistercian Abbey of Neukloster. By Nicolaus Lerch of Leyden, *M.C.C.* xiv, p. 103. 16. 1470. Garsten. Tomb of Rudolf von Losenstein in the Losenstein Chapel. *M.C.C.*, *N.F.* v, p. xliii. The monument bears the dates 1449 and 1470; the latter is probably the date of its erection or of the death of Rudolf's wife Magdalena. 17. 1470. Ulm. Carved on a roof-beam on N. side of nave of the Minster. *Anzeiger*, 1861, 231. Rather 1470 than 1450, since the short stroke of the doubtful sign turns so definitely downwards. 18. 1470. Hall. Katharinenkirche. *Anzeiger*, 1861, 85, 153. This has also been read 1450, but 1470 is to be preferred for the same reason as in the preceding example. 19. 1473. Ulm. Cut in stone over door of Dürftige-Stube in the hospital. *Anzeiger*, 1861, 84. 20. 1474. Vienna. Gravestone of Margaretha Kelbel. Ströhl, *Heraldischer Atlas*, Text zu Taf. LXVI, fig. 5. 21. 1476. Kralitz. Tomb of Vitus de Kralitz. *M.C.C.*, *N.F.* xxvii (1901), p. 117. 22. 1477. Krems (Lower Austria). Over S. doorway of Church of the Piarists. *M.C.C.* xi, p. 133.

TABLE XIX. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1477. Gravestone of Eustach Frodnacher at Pulgarn. *M.C.C.*, *N.F.* v, p. cxxix. 2. 1479. Marble slab of Sigmund von Eytzing, in parish church of Waidhofen a. d. Ybbs. *M.C.C.*, *N.F.* i, p. xxxiii. 3. 1480. Tabernacle, St. Lorenz, Lorch. *M.C.C.* xiii, p. 179. 4. 1480. Brass of Archbishop Jacobus de Senno. Gnezen. From Creeny, *Monumental Brasses on the Continent*. 5. 1481. On statue of St. Leonhard in church at Kundl (Tirol). *M.C.C.*, *N.F.* xvi, p. 149 (fig. 7). 6. 1481. On tabernacle at Röthis (Vorarlberg). *M.C.C.*, *N.F.* xxii, p. 32. 7. 1482. Brass of Bishop Rudolphus, Breslau. From Creeny, *op. cit.* 8. 1482. On the so-called Fischkasten at Ulm. *Anzeiger*, 1861, 83. 9. 1484. Arms of Kilian von Bibra, in the Dom, Würzburg. From Salver, Tab. VII. 21. 10. 1484. Builder's inscr., chapel of St. Agatha on Christberg (on the pass to Dalaas in the Klosterthal). *M.C.C.*, *N.F.* v, p. 67. 11. 1486. Tombstone of Eitzinger family in parish church, Drosendorf. *M.C.C.* xvii, p. clv. 12. 1486. Brass of Ernst, Duke of Saxony, at Meissen. From Creeny, *op. cit.* 13. 1487. Inscr. on tabernacle at Damtils (Vorarlberg). *M.C.C.*, *N.F.* v, p. 68; xxii, p. 32. 14. 1487. Gravestone in Church of St. Lorenz, Lorch. *M.C.C.*, *N.F.* v, p. cxxix. 15. 1488. Brass of Cardinal Nicolas de Cusa, at Cues on the Mosel. From Creeny, *op. cit.* 16. 1488. Gravestone at Friesach. *M.C.C.*, *N.F.* viii, p. 114. 17. 1490. Choir-stalls, Spitalkirche, Stuttgart. *Anzeiger*, 1861, 231. 18. 1491. On corbel under tabernacle in church of the Benedictines at Ödenburg. *M.C.C.* viii, p. 343. 19. 1491. Builder's mark in church at Hüttenberg (Kärnten). *M.C.C.*, *N.F.* xxiii, p. 110 and plate. 20. 1492. On tomb of King Kazimierz Jagiellończyk at Krakau, by Veit Stosz. *M.C.C.* xiii, p. li. 21. 1493. Gravestone of Anna Hoffer at Schwatz. *M.C.C.*, *N.F.* xxiii, p. 40. 22. 1493. Gravestone of Johann Lenberg in church at Reichersberg in the Innviertel. *M.C.C.*, *N.F.* v, p. xcvi. 23. 1495. On tabernacle at Egg (Vorarlberg). *M.C.C.*, *N.F.* xxii, p. 33. The doubtful figure has been read as 7, but I think there can be no doubt that it is a 5.

TABLE XX. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1495. Marble tombstone of Jeronimus Schrenck, at Loiben. *M.C.C.*, *N.F.* xvii (1891), p. 61, and Beilage v, fig. 2. 2. 1496. On stone panel from the castle at Grätz. *M.C.C.*,

- N.F.* xx, p. 51. 3. 1497. On wooden aumbry niche at Biecz. *M.C.C., N.F.* xix, p. 229.
 4. 1497. Landeck on the Inn: under shield of Oswold von Schrofenstein on S. wall of church. *M.C.C., N.F.* xvi, p. 27. 5. 1497. Landeck. Gravestone. *M.C.C., N.F.* xvi, p. 27.
 6. 1497. Landeck. Under shield of Oswold von Schrofenstein. *M.C.C., N.F.* xvi, p. 28.
 7. 1497. Stone in gable of Church of St. Ruprecht in Bezirk Strassenfuss. *M.C.C.* vii, p. 188.
 8. 1497. At Kuttendorf in Bohemia, in the tower-chamber of the old Münsterberg house. *M.C.C.* vi, 318. The 7 seems to be clear. 9. 1497, written m-cccc-97. Tomb of Wolfgang Hellcampf at Efferding in Hansruckviertel. *M.C.C., N.F.* vi, p. xlv. The doubtful figure might possibly be meant for a 5. 10. 1497. Dates on the tombstone of Jörg von Teuffenbach (died 1497) and his family at Teuffenbach in Steiermark. *M.C.C., N.F.* xvii, p. 226, and Beilage xv, fig. 3. 11. 1498. Brass of Bishop Uriel, Posen. From Creeny, *op. cit.*
 12. 1499. St. Jacob's, Villach. The dates 1487 and 149? occur on the gravestone of Wolfgang and Jeronima Leininger; the former died in 1499, the latter in 1487. *M.C.C.* xix, p. 144.
 13. 1499. Grätz, Hausmark on outside of Dom. *M.C.C.* xix, p. 122. 14. 1499. Grave-stone at Ungarisch-Hradisch. *M.C.C., N.F.* xxiii, p. 102. 15. 1499. Tabernacle in Leech-kirche, Grätz. *M.C.C.* iv, p. 219. 16. 1499. Tombstone of Eitzinger family at Drosendorf (not earlier than 1501). *M.C.C.* xvii, p. clvi. 17. 1499, written M499. Signature of Veit Stosz on relief of Kiss of Judas in Church of St. Sebaldus, Nürnberg (on the scabbard of one of the Orientals). *Anzeiger*, 1862, 403. This is rightly explained as a date by Lepkowski, *M.C.C.* xii, p. lxxxv. 18. 1500. Arms of Georg Fuchs von Wunfurt. Dom, Würzburg. Salver, Tab. III, 8. 19. 1500. Arms of Barth. von Reie. Dom, Würzburg. Salver, Tab. V. 14. 20. 1501. Arms of Georg von Giech. Dom, Würzburg. Salver, p. 146, 2. 21. 1502. Gmünd, Spitalkirche. *Anzeiger*, 1861, 231. 22. 1502. Arms of Albrecht von Bibra. Dom, Würzburg. Salver, Tab. V. 15. 23. 1503. Cilli (Styria). Gravestone of a Hohenwarter. *M.C.C., N.F.* vii, p. lxxv.

TABLE XXI. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1504. Partschendorf. Tombstone on outer wall of church. *M.C.C., N.F.* xxv, p. 43.
 2. 1505. Taufers. Tombstone of Anna Wiltpolt. *M.C.C., N.F.* xxi, 256. 3. 1505. Seben-stein. Gravestone. *M.C.C., N.F.* xi, p. xlii. 4. 1505. Brass of Eberard von Rabenstein, Bamberg. From Creeny, *op. cit.* 5. 1506. Font in church on the Heerberg. *Anzeiger*, 1861, 232. 6. 1506. Rankweil, on crossbeam of bell-frame in the "Dicker Thurm". *M.C.C., N.F.* xxi, p. 241. 7. 1506. Landeck. Porch of church. *M.C.C., N.F.* xvi, p. 24. 8. 1506. Landeck. Stone font. *M.C.C., N.F.* xvi, p. 25. 9. 1506. Gmünd. In side chapel of parish church. *Anzeiger*, 1861, p. 232. 10. 1506. Tombstone of Heinrich and Anna von Guttenberg at Wolfsberg (Kärnten). *M.C.C., N.F.* xviii, p. 111. 11. 1507. Salzburg. Gravestone. *M.C.C., N.F.* xi, p. lxviii. 12. 1507. Nassenreith, near Imst, Tirol. Stone font. *M.C.C., N.F.* xviii, p. 65. 13. 1508. Klosterneuburg. Gravestone. *M.C.C., N.F.* xiv, p. 51. 14. 1509. Laterns, Vorarlberg. Inscription on tabernacle. *M.C.C., N.F.* xxii, p. 32. 15. 1510. Wooden Todtenschild, from Salzburg, of "Georg Stöckl von Schwarzcek". *M.C.C., N.F.* xxv, p. 107. 16. 1510. Kufstein, Tirol. Tombstone of Kaspar v. Thurn. Ströhl, *Herald. Atlas*, Text zu Taf. LXVII, fig. 5. 17. 1511. Sebenstein. Gravestone. *M.C.C., N.F.* xiii, p. xlvii. 18. 1513. Gurksfeld. Tablet in Church of St. John. *M.C.C., N.F.* xviii, p. 124. 19. 1513. Langenzenn. Relief of Annunciation by Veit Stosz. *Mitt. Germ. Nationalmus.* 1908, Taf. IX. 20. 1513. Steier (Upper Austria). Tombstone of Meister Wolfgang Tenk. *M.C.C.* xvii, p. li; *N.F.* xvi, p. 153. 21. 1516. Cilli, parish church. Tomb of Jakob Neuburger's two wives. *M.C.C., N.F.* xvi, p. 254, and Beilage xx, fig. 3. 22. 1520. Schönberg near Vöklabruck. Monument of Caspar von Perkheim in the Marienkirche. *M.C.C.* xv, p. cxvii. 23 (and XXII. 18, 23, 24). 1520, 1536, 1543, 1544. Luggau (Kärnten). Hauszeichen-dates on church. *M.C.C., N.F.* xxvi (1900), p. 19 and plate.

TABLE XXII. GERMAN MONUMENTAL, ETC. (*continued*).

1. 1521. Maria Feicht (Kärnten). Shield on vaulting of organ-gallery. *M.C.C.*, xiii, p. 77.
2. 1521. Tarnów. Marble inscription on monument (in Italian style) of Barbara Tarnowska. *M.C.C., N.F.*, xix, p. 73.
3. 1522(?). Ringenhain (Friedland). Builder's inscription in St. Magdalen's. *M.C.C., N.F.* xxii, p. 154.
4. 1523. Nürnberg. Germ. Nationalmus. Bronze epitaph of Mertin Stengel. *Mill. Germ. Nationalmus.* i, p. 185. Cp. the forms on the "1320" seal of Trostberg (above, p. 144).
5. 1524. Römhild, Old Henneberg Schloss. Keystone of a small pointed-arched door. *Anzeiger*, 1863, 324.
6. 1524. Friesach. Tombstone of Coloman Brunmeister. "M.D.24. die 21", &c. *M.C.C., N.F.* vi, p. cx.
7. 1524. Feldkirchen. On a house. (Painted or carved?) *M.C.C., N.F.* xxii, p. 170.
8. 1524. Olmütz. Builder's inscription in St. Michael's. *M.C.C., N.F.* xix, p. 131.
9. 1524. Latsch (Vintschgau). Builder's date in church. *M.C.C., N.F.* xxiii, p. 213.
10. 1524. Maria Feicht (Kärnten). Stone music-gallery in church. *M.C.C., N.F.* xxiv, p. 107.
11. 1524. Prusinovic (Mähren). Grave-stone. *M.C.C., N.F.* xix, p. 34.
12. 1526. Brensbach Evangel. Church. Date under the arms of Philip the Magnanimous on the pulpit. *Archiv f. hess. Gesch.* v, pt. 2, art. xii. Important in its bearing on the forms seen on the seal of Gottfried von Hohenlohe (p. 144).
13. 1528. Salzburg. Tombstone of Hans Reuter von Klebing. [Reference mislaid.]
14. 1529. Enns im Traunviertel, Austria. Gravestone of Erasmus Paumkirchner. *M.C.C., N.F.* vii, p. cviii.
15. 1533. Wolfsberg. Tombstone of G. von Streitberg. *M.C.C., N.F.* xviii, p. 150. Note the two forms of 3, one of which might almost be taken for a 2. The 1 is somewhat confused with the preceding ornamental stop.
16. 1534. Clay water-pipe from Bochtitz. *M.C.C., N.F.* xxi, p. 50.
17. 1534. Weikelsdorf near Zeitz. On a pillar of the church (beginning of XVI cent.). *Anzeiger*, 1863, 322. The interpretation is not quite sure, the inscription being a freak. There is a still worse instance in the church at Langendorf, near Zeitz (*ib.* p. 323), which has been read 1531 or 1571, although it is difficult to make anything at all out of it.
18. See XXI. 23.
19. 1537. Regensburg. Sandstone slab outside Church of St. Emmeran. L. Day, *Lettering in Ornament*, after Gerlach u. Schenk, *Monum. Schriften*.
20. 1541. Nürnberg. Bronze epitaph. L. Day, *Lettering in Ornament*, p. 54, after Gerlach u. Schenk, *Bronce-epitaphien der Friedhöfe zu Nürnberg*.
21. 1542. Brunn. Tombstone (in Dom) of Michael of Regensburg and his wife, bearing dates 1519 and 1542, all probably of the latter date. *M.C.C., N.F.* xix, p. 133.
22. 1542. Raigern. Gravestone of Abbot Ambrosius. *M.C.C., N.F.* xxi, p. 123, where the date is described as 1542 corrected to 1540; from the illustration it would appear that the last sign is merely a 2 with ornamental serifs.
- 23, 24. See XXI. 23.

TABLE XXIII. GERMAN SEALS.

1. 1331. City of Heidingsfeld am Main. *Anzeiger*, 1859, 249. In the illustration there given it may be noted that the numerals are somewhat weak in appearance, and not symmetrically placed with regard to the design; are they a subsequent addition?
2. 1351 (pl. XIX, no. 5). City of Ulm. Germ. Mus., Nürnberg. "Sigillum secretum civium in ulma 1351." *Anzeiger*, 1859, p. 250; *Verhandl. des Vereins für Kunst u. Alterthum in Ulm u. Oberschwaben*, vi (1874), pp. xiv f.
3. 1368. Johann I, Landgraf zu Leuchtenberg. *Anzeiger*, 1859, 373. Impressions in the K. bayer. Reichsarchiv.
4. 1369. Hermann der Rot von Ulm. *Anzeiger*, 1861, 153; 1869, 326 (illustrated). It is noted that the form of the shield is unusual at this time.
5. 1405 (pl. XIX, no. 4). This is apparently the date on an obscure seal of the city of Wimpfen in the Germ. Mus., Nürnberg. The legend appears to be "S. Secreti (*sic*) Oppidi Wimpfensis 1405". The 5 is like a modern 2 set on its side. This may be the seal which is described in *Anzeiger*, 1859, p. 250, as reading 1426.
6. 1412 (pl. XIX, no. 6). Johann, Abbot of Kaisersheim. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. "Sigillum iohannis

abbatis in cesarea h(?)". The date 1412 is in the field. This is Johann Scherb, eighteenth abbot, 1405-1423. 7. 1425. Propst Ulrich in den Wengen. *Anzeiger*, 1861, p. 82. 8. 1429 (pl. XIX, no. 3). Bishop Albrecht II of Eichstädt. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. 9. 1433 (pl. XIX, no. 7.) Monastery of St. Oswald. Germ. Mus., Nürnberg. "1433. s. conventus monasterij s. oswaldi canonicorum regular." In *Anzeiger*, 1859, p. 251, this is described as a seal of the Monastery of Niederaltaich. St. Oswald's, however, was an Augustinian house, near Gravenau in the diocese of Passau, though it seems to have been in some way dependent on the Benedictine house at Niederaltaich. On this seal the arms of the house are simply [az.] a fess [arg.] ; above the shield is a raven holding a ring in its beak. Sibmacher, *Klöster*, p. 67, Taf. 83, gives a later version of the arms showing two shields accolés, viz. az. a fess arg., and arg. on a mount a raven holding a ring in its beak (tincture not stated). 10. 1433. City of Stuttgart. "S. civium in Stuoitgarten." *Anzeiger*, 1861, p. 84. See Pfaff in *Württemb. Jahrbücher*, 1854, 2, p. 178. 11. 1436. City of Heidelberg. In use on documents from 1436 to 1501. See A. von Weech, *Siegel der badischen Städte*, pl. xviii. 12. 1440. City of Grätz. *M.C.C.* xvi, p. cxi. Cp. J. Wartinger, *Privilegien der Hauptstadt Graz* (1836), p. ii. 13. 1444. Seal of a member of the family of Riedtheim. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 250. The name is there given as Ludwig von Rietheim, which I cannot decipher on the impression before me. Possibly the name is Ulric (Udalric), since an Udalric of Riedtheim was in existence at this time (Bucelinus, *Germania Stemm.* vol. i, under Riedtheim). 14. 1444. Seal of Monastery of Holy Trinity, Wiener Neustadt. *Jahrb. k. k. Centr.-Comm. für Erforsch. u. Erhalt. der Baudenkmale*, iii (1859), p. 238. 15. 1444. Seal of city of Wetzlar, Germ. Mus., Nürnberg. "Secretū civitatis wetzlariēsis ad causas 1[44]4." *Anzeiger*, 1859, p. 250. 16. 1446. Seal reading "Nicolaus Grünwalt pp. ad(?) Sot(?)". Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251 ("Kloster Grünwald"). 17. 1446. Albert VI of Austria. *M.C.C.* xv, p. 37. 18. 1450. Seal of Imperial Landgericht (provincialis burggraviatus) in Nürnberg. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 251. This is given (wrongly) as 1420 in *Anzeiger*, 1861, p. 230. 19. 1450+. Friedrich III. No space allowed for the fourth numeral. Cp. the book-plate of 1470 of Johannes, priest of St. Moritz in Augsburg (above, p. 150). 20. 1452. Seal of the Provincial of the Franciscan Order for Austria and Styria. *M.C.C.* xix, p. 260. 21. 1453. City of Krems. Melly, no. 46, pl. viii; *M.C.C.* xvii, p. xxiii.

TABLE XXIV. GERMAN SEALS (*continued*).

1. 1453. Dominican Convent of St. Peter in Wiener Neustadt. *M.C.C.* xv, p. cxxviii. 2. 1454. City of Ulm. B.M., Birch, *Catal. of Seals*, no. 21,521 (misread 1457); on a document of 1520 (B.M., Add. Ch. 26725). 3. 1454. Seal of Heinrich Mühlbach of Judenburg. *M.C.C.*, *N.F.* xxii, p. 26, fig. 18. 4. 1454. Kurfürst Friedrich I von der Pfalz. Germ. Mus., Nürnberg. *Anzeiger*, 1859, p. 250. 5. 1458. Friedrich III. *M.C.C.* xvi, p. 31. 6. 1458. Wiener Neustadt. *M.C.C.* xvi, p. cxcv. 7. 1459. Friedrich III as Archduke of Austria. From a wax cast of an impression in the Germ. Mus., Nürnberg. Cp. the illustration in *M.C.C.* xvi, p. 23, where the 5 is drawn somewhat differently. 8. 1464. Friedrich III. *M.C.C.* xvi, p. 31. 9. 1464. City of Vienna. *M.C.C.* xi, p. xi (Beibl. no. 16). 10. 1464. City of Oppenau, in use 1474-1609. A. von Weech, *Siegel der badischen Städte*, pl. lxxxv. A later version of this seal was evidently made towards the end of the century; it bears the same date (but with the upright 4), and occurs on documents from 1499 to 1622. 11. 1465. City of Cilli. *M.C.C.* xvi, p. cii. 12. 1467. Knittelfeld. *M.C.C.*, *N.F.* iv, p. lxx. 13. 1468. Markt Aspang. *M.C.C.* xvi, p. lxii. 14. 1469. Grein. *M.C.C.* xix, p. 89. On a document of 1473. Cp. Melly, p. 71, no. 149, pl. iv. 15. 1471. Gottschee. *M.C.C.*, *N.F.* xii, p. clix. 16. 1472. Landgericht of the Grafschaft Rotenfels. *Anzeiger*, 1861, p. 83.

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The original matrix is in the Maximiliansmuseum at Augsburg. 17. 1473. Krautheim. In use 1503-1521. A. von Weech, *Siegel der badischen Städte*, pl. vi. 18. 1476. Gmünden. *M.C.C., N.F.* iv, p. lxix. 19. 1477. Gurkfeld (Krain). *M.C.C.* v. 328. Cp. *M.C.C.* xix. 89, which is a XVI cent. reproduction.

TABLE XXV. GERMAN SEALS (continued).

1. 1479. Augustin Adlof of Judenburg. *M.C.C., N.F.* xxii, p. 26. On a document of 1480.
2. 1480. Amalie, Duchess of Bavaria, daughter of Friedrich the Mild. O. Posse, *Die Siegel der Wettiner*, pl. xxiii. 4.
3. 1481. Provost of Monastery of St. Nicolas in Rotenmann. *M.C.C.* xix, p. 252.
4. 1483. City of Freiburg i. Ü. *Anzeiger*, 1873, 94.
5. 1485. Rector of University of Cologne. Silver matrix in the Victoria and Albert Museum. Cp. Sibmacher, *Wappenbuch*, i. 8, Taf. XVIII, 3 (illustration inexact). The bottom stroke of the 5 is shortened by part of the design.
6. 1487. Krems. Melly, *Beiträge*, no. 48, pl. ix. Cp. *M.C.C.* xvii, p. xxiv.
7. 1487. Dominican Convent of St. Mary, Neukloster. *M.C.C.* xix, p. 246.
8. 1487. Monastery of St. Nicolas in Rotenmann. *M.C.C.* xix, p. 253.
9. 1488. City of Judenburg. *M.C.C.* xvii, p. clix. On a document of 1603, but may be contemporary with the date it bears.
10. 1488. Monastery of St. Paul in the Lavantthal. *M.C.C.* xix, p. 261.
11. 1489. Benedictine Monastery of St. Lambrecht. *M.C.C.* xix, p. 242.
12. 1489. Benedictine nunnery at Göss (Styria). *M.C.C.* xviii, p. 318.
13. 1489. City of Bautzen. Germ. Mus., Nürnberg. Misread 1444 in *Anzeiger*, 1859, p. 250. It may possibly be 1484.
14. 1492. Hans Hohewarter of Judenburg. *M.C.C., N.F.* xxii, p. 26.
15. 1493. Seal of Hans Stahl of Judenburg. *M.C.C., N.F.* xxii, p. 26.
16. 1493. Drosendorf. *M.C.C., N.F.* iii, p. cxxiii.
17. 1502. Brilon (Westphalia). Philippi, *Westphal. Siegel*, pl. 97, 10.
18. 1503. Frauenbruderschaft im Spitale zu Wien. *M.C.C.* xvi, p. lxii.
19. 1503. Vienna. *M.C.C.* xviii, p. 219.
20. 1503. Heidelberg. On documents from 1502 (!) to 1601. A. von Weech, *Siegel der badischen Städte*, pl. xviii.
21. 1504. Regular Canons, S. Veit, Pöllau. *M.C.C.* xix, p. 250.

TABLE XXVI. GERMAN SEALS (continued).

1. 1507. Stephan Bär of Judenburg. *M.C.C., N.F.* xxii, p. 26.
2. 1514. Tübingen. Pfaff, *Württemberg. Jahrbücher*, 1854, 2, p. 147.
3. 1517. Reuchen. In use 1517-1522. A. von Weech, *Siegel der badischen Städte*, pl. lx.
4. [15]19. Two seals of Hermann V, Abp. of Cologne. Ewald, *Rheinische Siegel*, i, pl. xxvi. 7; xxvii. 1.
5. 1521 (or 1527). Heidelberg. In use 1570-1579. A. von Weech, *Siegel der badischen Städte*, pl. xlv.

TABLE XXVII. GERMAN: VARIOUS.

1. 1434. "Anno doi milesimo cccc 34". Window in St. Leonhard's, Tamsweg. *M.C.C.* xix, pp. 77, 80.
- 2, 4. 1444, 1448. On a stole and pallium, with the motto of Friedrich III, at Tököle. *M.C.C., N.F.* vii, pp. 72, 73.
3. 1446. Bell at Nenberg. *M.C.C., N.F.* xxiii, p. 122. The date 1442 occurs on a bell in the church ad S. Ioannem decoll. in Zeben (*M.C.C.* xvii, p. iii).
5. 1463. Figures and date on a portable sundial found at Hörnstein, Lower Austria. *M.C.C.* xvi, p. clxxx.
6. 1466 (M466). On the bottom of a paten. *Anzeiger*, 1861, p. 190.
7. 1491. Mark on the eagle of the Merchants' Schützengild of Breslau. *M.C.C.* vii, p. 52.
8. 1495. Pall of the Holzschuhers, in the Germanisches Nationalmuseum, Nürnberg. *Mitt. Germ. Mus.* 1895, p. 99.
9. 1499. On sword of the Hochmeister Siebenhirter of the Order of St. George. *M.C.C.* xviii, pp. 310 (fig. 11), 315.
10. 1508. Bell in St. Michael's Chapel, Rankweil. *M.C.C., N.F.* xxi, p. 241.
11. 1517. Glass-painting in the Germanisches Nationalmuseum, Nürnberg. *Katalog* (1898), no. 260, p. 33 and pl. xi.
- 12-14. 1526, 1530, 1531. German pottery (plates in the Germanisches Nationalmuseum). *Anzeiger*, 1875, p. 238.
- 15.

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1573. Date and figures on a metal gauge (German) in the British Museum. A late survival of the old 4. 16. 1596. German pottery. *Anzeiger*, 1875, p. 268. Very similar forms occur on a plate dated 1593, *ibid*.

TABLE XXVIII. GERMAN PAINTINGS.¹

1. 1435. Altar-piece by Lukas Moser at Tiefenbronn. *Anzeiger*, 1861, pp. 49 and 83; *Jahrb. der kunstgesch. Gesellsch. f. fotogr. Publikationen*, v (1899). It has been read 1431 and even 1451; the latter is highly improbable. If the artist wished to vary the form of his 1, he would be more likely to ornament the numeral on its first than on its second occurrence; the first numeral is often decorated, like an initial letter. The fourth numeral here is thus probably not 1, and it can hardly be anything but 5. 2. 1446. Heraldic painting ("Hand-registratur" of King Friedrich IV), Vienna. Ströhl, *Herald. Atlas*, pl. xxviii. 3, 4. 1449. D. Pfening. Vienna, 1396. 5. 1483. Hungarian School. Budapest, 9. 6, 7. 1487, 1488. Paintings on side-altars in St. Martin's Chapel near Ludesch. *M.C.C., N.F.* xviii, p. 236. 8. 1491. Monogrammist R. F. Vienna, 1398. 9. 1493. Dürer. Portrait of himself, formerly in the Felix Collection. Cust, *Dürer Engravings*, p. 21. 10. 1498. Dürer. Portrait. Prado. 11. 1499. Dürer. Portrait of Hans Tucher. Grand-Ducal Museum, Weimar. From Dürer Society's Reproduction. 12. 1503. Dürer. Vienna, 1442. 13. 1504. Lucas Cranach the Elder. Berlin, 564 A. 14. 1506. Dürer. Berlin, 557 F. 15. 1506. Dürer. Dresden, 1870. 16. 1507. Dürer. Vienna, 1444. 17. 1507. Dürer. Berlin, 557 I. 18. 1507. Albrecht Altdorfer. Berlin, 638. The date occurs twice on the picture. 19. 1507. Albrecht Altdorfer. Berlin, 638 A. Note the 3-like form of 5. 20. 1508. Meister des Marienlebens. Cologne, 141. 21. 1508. Dürer. Vienna, 1446.

TABLE XXIX. GERMAN PAINTINGS (*continued*).

1. 1509. Hans Schäuuffein. Portrait. German. Mus., Nürnberg. *Mitt. Germ. Mus.*, 1895, p. 65. 2. 1510. H. Schäuuffein. Prag, 609. 3. 1511. Hans Burgkmair. Berlin, 584. 4. 1511. Hans von Kulmbach. Berlin, 596 A. 5. 1511. H. Schäuuffein. Berlin, 560. 6. 1511. Dürer. Vienna, 1445. 7. 1512. Dürer. Vienna, 1447. 8. 1512. Baldung. Berlin, 603. 9. 1512. Jörg Breu. Berlin, 597 A. 10. 1514. Monogrammist I. M. Prag, 177. 11. 1514. Hungarian School. Budapest, 5. 12. 1515. Altdorfer. Vienna, 1422. 13. 1515. Baldung. Vienna, 1424. 14. 1515. L. Cranach the Elder. Vienna, 1453. In spite of the difference between the second and fourth numeral, both probably represent 5. 15. 1516. Baldung. Prag, 27. 16. 1519. Dürer. Vienna, 1443. 17. 1520. Hans Brosamer. Vienna, 1477. 18. 1526. Dürer. Vienna, 1448. 19. 1528. L. Cranach the Elder. Stockholm, 1080. 20. 1528. Wolf Krodel. Vienna, 1472. 21. 1529. Ruprecht Heller. Stockholm, 272.

TABLE XXX. GERMAN PRINTED BOOKS, WOODCUTS, ETC.

1. 1464. Woodcut. Dodgson, *Catalogue of Early German and Flemish Woodcuts in the British Museum*, i (1903), A. 25. 2. 1470. Block-book, *Biblia Pauperum*. (B.M., I B. 3.) 3. 1470. Rolewinck, *Sermo in festo praesentationis beate Marie Virginis*. Cologne. (B.M., I A. 3102.) The first figure 1 is of course merely a capital letter I. 4. 1471. Block-book, *Biblia Pauperum*. (B.M., I C. 5.) 5. 1473 (after October). *Fasciculus Temporum*. Cologne. (B.M., I B. 3805.) 6. 1474. Regiomontanus. Nürnberg. (B.M., I A. 7888.) 7. 1477. *Fasciculus Temporum*. Cologne. (B.M., I B. 3128.) 8. 1479. *Fasciculus Temporum*. Cologne. (B.M., I C. 4371.) 9. 1481. Woodcut by Hans Schauer. Dodgson, *Catalogue*, i, A. 120. 10. 1482. Woodcut. Dodgson, *Catalogue*, i, A. 123; Schreiber, *Manuel*, 1881.

¹ See also Supplementary Table L. 11.

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11. 1488. Woodcut in Augsburg Boethius. D. E. Smith, *Rara Arithmetica*, p. 26. 12. 1496. Woodcut: Andechs or Munich. Dodgson, *Catalogue*, i, p. 120. 128. 13. 1499. Woodcut by Mair of Landshut. Dodgson, *Catalogue*, i, p. 149. 145. 14. 1499. Woodcut by Mair of Landshut. Dodgson, *Catalogue*, i, p. 149. 143. 15. 1499. Woodcut by Burgkmair. Schreiber, *Mannet*, 2022; *Catal.* 40, pl. xv. 16. 1500. Johann Widman, *Behennd vnd hüpsch Rechnung* (Commercial Arithmetic). Pforzheim. D. E. Smith, *Rara Arithm.*, p. 37. 17. 1503. From Reisch, *Margarita Philosophica*. Freiburg, 1503. Woodcut title-page. 18. 1504. Dürer. Nativity (B. 2). 19. 1507. Woodcut in the 1507 Algorithmus (Leipzig). D. E. Smith, p. 88. 20. 1508. Dürer. Copper engraving. St. George on Horseback.

TABLE XXXI. GERMAN COINS.

All from specimens in the British Museum, except no. 15, which is : 1504. Salzburg, Archbishop Leonhard. *Blätter f. Münzfreunde*, 1909, pl. clxxxiv. 5.

TABLE XXXII. GERMAN COINS.

All from specimens in the British Museum, except nos. 2 (from a photograph), 8 (from *Anzeiger*, 1861, 232), and 11 (from a specimen in Mr. Rosenheim's collection).

TABLE XXXIII. GERMAN MEDALS.

1. 1499. Ladislaus II of Hungary. Domanig, *Die deutsche Medaille*, No. 6. 2. 1507. Albert IV of Bavaria. Domanig, no. 32, pl. iv. 3. 1508. Michael Wolgemut, attributed to Dürer. The date was incised in the model. Rosenheim Collection. 4. 1512. Friedrich, Duke of Saxony. The date has the appearance of being punched in. Rosenheim Collection. 5. 1514. "Dürer's Father," attributed to Dürer. Rosenheim Collection. 6. 1524. Magdeburg, Cardinal Albert of Brandenburg.

TABLE XXXIV. SWISS COINS.

All from specimens in the British Museum.

TABLES XXXV-XXXVIII. LOW COUNTRIES. COINS, ETC.

The numerals in Tables XXXV-XXXVIII are taken chiefly from specimens in the British Museum, supplemented by the illustrations in the various volumes by Van der Chiis on Netherlandish coins.

TABLE XXXV.

- 1, 4, 8, 10 are from coins of Flanders. 2, 5, 7, 9, 11, 16 are from coins of Brabant. 3, 6, 13 are from coins of Gelderland. 12, 14, 15 are from coins of Holland.

TABLE XXXVI.

1, 4, 6 are from coins of Utrecht. The last might possibly be read 1487, but the distinct curve in the tail of the doubtful figure suggests that we have an analogy to the German 5; in other cases (as Table XXXVIII. 2 and 6) the form of 5 is still nearer to the modern 7. Compare also the Gelderland forms, Tables XXXVII. 15 and XXXVIII. 16. 2, 7, 14 are from coins of Brabant. 3, 5, 9, 11, 13 are from coins of Holland. 8, 15 are from coins of Friesland. 10 is from a coin of Gelderland. 12, 16 are from Flemish jetons.

TABLE XXXVII

1. Medal of Archbishop Schevez of St. Andrews. The belief that this medal is of Flemish origin is confirmed by evidence which will be published by Dr. R. F. Burckhardt of Basel.

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Schevez was out of Scotland, on a journey to Rome, at the time the medal was made. 2, 15 are from coins of Gelderland. For the "German" 5 in the latter compare Table XXXVI. 6, 3, 5, 9 are from coins of Utrecht. 4, 8, 10, 20, 21 are from jetons. In No. 10 the two forms of 4 are not on the same piece, but on two different jetons of the same year. 6 is from the Montagu specimen of the so-called "Perkin Warbeck groat", which, there can be little doubt, was struck in Flanders, and is not a coin but some sort of counter. Franks and Grueber, *Medallie Illustrations*, i, p. 21, no. 3. 7, 12 are from coins of Holland. 11, 19 are from coins of Friesland. 13, 14, 17, 18 are from coins of Brabant. 16 is from a coin of Luxemburg.

TABLE XXXVIII.

1, 4, 7, 12, 14 are from coins of Brabant. 2, 6, 8 are from coins of Utrecht. The form of 5 on nos. 2 and 6 has already been noticed. 3, 5, 9, 11, 13, 15, 17-22 are from jetons. The last is given as an instance of a form of 5 which might easily be mistaken for 3. 10, 16 are from coins of Gelderland, the latter showing the "German" 5.

TABLE XXXIX. LOW COUNTRIES: PAINTINGS.

1. 1432. 10 Oct. Jan van Eyck. National Gallery, 290. 2. 1433. Jan van Eyck. National Gallery, 222. The date is written M^oCCCC^o.33^o.21 Oct. 3. 1434. Jan van Eyck. National Gallery, 186. 4. 1438. 31 Januarii. Jan van Eyck. Berlin, 528. 5. 1446. Petrus Cristus. Portrait of Edward Grimston, at Gorhambury. *Archaeologia*, xl, p. 459. 6. 1462. Flemish School. Portrait of a man. National Gallery, 943. 7. 1474. Flemish School. Martyrdom of St. Erasmus. Library of Soc. of Antiquaries. Scharf's *Catal.*, p. 13 f. 8. 1514. Atelier of Quentin Matsys. Stockholm, 505. 9. 1516. Gossart. Berlin, 648. 10. 1523. Jacob van Utrecht. Berlin, 623 A. 11. 1528. Jan van Rillaer. Berlin, 1630.

TABLE XL. FRENCH MEDALS.

1. 1485. Aimar de Prie. From the Paris specimen. I have placed this among the French medals, although it has some affinities with N. Italian work. But I can find no evidence of Aimar de Prie's having visited Italy so early as 1485. The medal has been attributed to a later date, but I am by no means sure that Friedländer (*Die geprägten Medaillen*, p. 15) is not right in insisting that it was struck in 1485. 2. 1486. Charles de Bourbon. British Museum. Cast. 3. 1493. Charles VIII and Anne de Bretagne. British Museum. Struck at Lyons; the work of Louis Lepère, Nicolas de Florence, and Jean Lepère. 4. 1494. Medal issued at Vienne on the birth of the Dauphin, Charles-Orland. See Heiss, *Niccolò Spinelli*, etc., p. 53; Mazet-rolle, *Les Médailleurs français*, pl. ii. I note, as a matter of interest to numismatists, that there is in the British Museum (Dept. of British and Mediaeval Antiquities) a seal-like reproduction of this medal in cast bronze, the representation being sunk, instead of in relief. To make it, a specimen of the medal must have been taken, two wax impressions made from it, these two impressions placed back to back, the whole covered with moulding material, and the present piece cast by the *cire perdue* process. 5. 1499. Lyons medal of Louis XII and Anne de Bretagne. Cast. 6. 1512. François I. *Trésor de Numismatique, Méd. fr.* i, pl. x. 1. Possibly not French. 7. 1512. Florimond Robertet. *Op. cit.* i, pl. xliii. 3. Possibly not French. 8. 1518. Medals of Jacques de Vitry, Pierre Girard de Rhodéz, Jean de Talaru, Antoine de Toledo. British Museum, etc. All misread 1515 by some old writers, owing to the peculiar shape of the 8.

TABLE XLI. ITALIAN PAINTINGS.¹

1. 1472. Carlo Crivelli. Virgin and Child. R. H. Benson Collection. *Catal. of the National Loan Exhibition*, 1909-10, no. 71. 2. 1473. Giov. Boccato (Umbrian School).

¹ For a painting dated 1391, see Supplementary Table L. 5; for others of 1464, above, p. 147, note 1.

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Budapest, 74. 3. 1474. Antonello da Messina. Berlin, 18 A. 4. 1475. Antonello da Messina. Louvre, 37. 5. 1477. Antonello da Messina. National Gallery, 1166. 6. 1477. Bartolommeo Vivarini. Vienna, 10. 7. 1485. Bartolommeo Vivarini. Berlin, 1160. 8. 1487. Bonsignori. National Gallery, 736. 9. 1489. Francesco Tacconi. National Gallery, 286. 10. 1496. Carpaccio. Vienna, 7. 11. 1497. Niccolò da Foligno. Budapest, 82. 12. 1497. Ant. da Carpi. Budapest, 123. 13. 1499. Macrino d'Alba. Imbert Collection, *Burlington Magazine*, May, 1909, p. 115. This is not, as there stated, a portrait of the painter, the inscription implying the very contrary. 14. 1502. Lorenzo Costa. Berlin, 112. 15. 1502. Francesco Francia. Berlin, 122. 16. 1510. Florentine: atelier of San Marco. Vienna, 38. 17. 1511. Fra Bartolommeo. Borghese Gallery, 310. From Lafenestre. 18. 1511. Andrea Solario. Borghese Gallery, 461. From Lafenestre. 19. 1515. Basaiti. Vienna, 1. 20. 1515. Panel (marriage tray) in Victoria and Albert Museum. Madonna and Child and two angels. 21. 1516. Fra Bartolommeo. Vienna, 41.

TABLE XLII. ITALIAN PAINTINGS (*continued*).

1. 1521. Lorenzo Lotto. Berlin, 325. A similar form of 5 occurs on Venetian medals (Table XLV. 11-14). Its origin is seen in forms like those on no. 20 of preceding Table. 2. 1522. Franciabigio. Berlin, 245. 3. 1523. Andrea del Sarto. Portrait of himself. Panshanger. [National Loan Exhibition, 1909-10, no. 45.] 4. 1526. Mazzolino. Vienna, 88. 5. 1531. Lorenzo Lotto. Berlin, 323.

TABLE XLIII. ITALIAN MAJOLICA.

1. Mid. XV. cent. Majolica roundels of the Months, by Luca della Robbia, in the Victoria and Albert Museum. These show the characteristic Italian forms of the time. The figures in the July are restored, and the fraction may possibly have once been $\frac{2}{3}$. My attention was called to these by Mr. E. D. MacLagan, who informs me that the roundels must date before about 1460, or 1464 at the latest. 2. 1487. Faenza. Fortnum, *Majolica*, p. 88. 3. 1489. Forlì. Plaque in Victoria and Albert Museum (490. '64). 4. 1491. Faenza. Fortnum, p. 92. 5. Gubbio plaque by Giorgio Lombardo in the British Museum. 6. 1503. Faenza. Fortnum, p. 109. 7. 1508. Castel Durante. Fortnum, p. 49. 8. 1509. Caffaggiolo. Fortnum, p. 3. 9. 1513. Faenza. Fortnum, p. 117. 10. 1513. Tile in British Museum. Wallis, *Italian Ceramic Art: the majol. pavement tiles of the fifteenth century*, fig. 91. 11. 1518. Gubbio. Fortnum, p. 28. 12. 1524. Gubbio. Fortnum, p. 30. 13. 1526. Gubbio. Fortnum, p. 34. 14. 1528. Gubbio. Fortnum, p. 36. Anywhere but in Italy, this might possibly be 1524, the 4 being inverted. But a badly made o is not out of the question. 15. 1528. Gubbio. Fortnum, p. 33. 16. 1530. Gubbio. Fortnum, p. 36.

TABLE XLIV. ITALIAN MEDALS, ETC.

1. 1390. Medal of Francesco Carrara. *Periodico di Numismatica*, i, pl. vii. 5. Struck. 2. 1393. Venetian medal, by Marco Sesto. *Op. cit.* i, pl. vii. 1. Struck. 3. 1417. Venetian tessera, by Alessandro Sesto. *Op. cit.* i, pl. vii. 3. Struck. 4. 1446. Sigismondo Malatesta, by Matteo de' Pasti. British Museum. 5. 1447. Isotta Atti, by Matteo de' Pasti. Incised on the model; the 1 is obscure. Heiss, *Les Médailleurs de la Renaissance*, *Alberti*, pl. viii. 4. 6. 1448. Antonio Marescotti, by Marescotti. Heiss, *Marescotti*, etc., pl. ii. 2. Incised on the model. There is no reason to doubt its contemporaneity. 7. c. 1460. Antonio Roselli, by Bartolommeo Bellano. From the British Museum specimen. The figures 91 cannot indicate Roselli's age if, as seems to be the fact, he died, aged 85, on Dec. 10, 1466. See Semrau, *Donatello's Kanzelu*, p. 151. 8. 1461. Taddeo Manfredi, by Enzola. From

the British Museum specimen. 9. 1464. Paul II. From the Paris specimen. Although this medal is made from one of Paul's medals of 1455, when he was Cardinal of San Marco, by reworking the model, there is no reason to suppose that it is not contemporary with the date which it bears. 10. 1470. Galeazzo Maria Sforza, probably by Caradosso. Friedländer, *Ital. Schanmtinzen*, pl. xxxvi. 11. 1472. Ercole I d'Este, by Baldassare Estense. Heiss, *Niccolò*, etc., pl. v. 1. 12. 13. 1479. Medals by Candida of Jehan Miette and Jean Carondelet respectively. The occurrence of the old form of 4 on these medals by an Italian is explained by their having been made at Lille and Paris. The same fact accounts for the old 7 on no. 12. But the new 7 occurs on no. 13; compare the variation on the coins of the Low Countries about this time, Table XXV. 9 ff. 14. 1481. Alfonso, Duke of Calabria, by Guazzalotti. Heiss, *Florence*, i, pl. iii. 5. 15. 1481. Mahomet II, by Constantius. British Museum. 16. 1485. Bernardo Gambara. Roman School. Rosenheim Collection. 17. 1485. Fabrizio Marliano. From the Berlin specimen. 18. 1489. Pietro Vettori. Heiss, *Florence*, i, p. 45, after Litta. The drawing may therefore be inaccurate. 19. 1495. Lorenzo Cigliamocchi. By himself? Heiss, *Florence*, i, pl. xiii. 2. 20. 1497. Pattern (bronze) for testoon of Lodovico il Moro. British Museum. Gneccchi, *Monete di Milano*, pl. xvii. 5.

TABLE XLV. ITALIAN MEDALS (*continued*).

1. c. 1498. Aless. Vecchiotti. Florentine. The figures 26 give his age; he was born in 1472. British Museum. 2. 1499. Giangiacomo Trivulzio. By Caradosso. British Museum. 3. 1502. John Greudner, by Niccolò Fiorentino or his school. British Museum. 4. 1503. Lodovico Marchese di Saluzzo and Marguerite de Foix. North Italian. 5. 1505. Ercole I d'Este. Heiss, *Niccolò*, etc., pl. vii. 4. 6. 1513 (written MD13). Louis XII. Probably Milanese work. British Museum. 7. 1515. Pietro Antonio da Castello. From the Paris specimen. 8. 1516. Marguerite de Foix, by "J. J. C." North Italian (Genoese?) work. British Museum. 9. 1538. Antonio Mula, by Spinelli of Venice. With the broken-topped 8 compare Table XLIII. 14. Struck. 10. 1539. Giov. Vinc. Dolci, by Giovanni Cavino of Padua. Struck. British Museum. 11. 1539. City of Venice. By Spinelli. Struck. British Museum. With the peculiar 5 compare that on the painting (also Venetian) by Lotto, Table XLII. 1. 12. 1540. Girolamo Quirini. By Spinelli of Venice. Struck. British Museum. For the 5 see preceding. 13. 1542. Venetian, by Spinelli. Struck. British Museum. For the 5 see no. 11. 14. 1549. Girolamo Zanc. By Spinelli of Venice. Struck. British Museum. For the 5 see no. 11.

TABLE XLVI. ITALIAN. VARIOUS.¹

1. 1423. Venice, monument of Tommaso Mocenigo, in SS. Paolo e Giovanni. See Friedländer, *Period. di Numism.* i, p. 146. From a squeeze supplied by the architect of St. Mark's through Mr. Horatio Brown. 2. 1428. "formato a di 17 di gienao 1428, formato nel Gabinetto (?) di Nicholo in gesso." Scratched in the wet stucco on the back of a stucco relief in the Ashmolean Museum (Fortnum). The relief has been rashly condemned, but also defended; consulted about the inscription, both Mr. Warner and Mr. Herbert independently, and without seeing the date, pronounced it to be of the XV cent. See Bode, *Florentiner Bildhauer* (1902), p. 162; *Florentine Sculptors* (London, 1908), p. 97, where it is assigned to Luca della Robbia. Other references, kindly supplied by Mr. C. F. Bell, are M. Reymond, *Les della Robbia* (1897), p. 111; Fortnum, *Athenaeum*, Dec. 18, 1897; Bode, *Denkmäler*, pl. 191, pp. 73-74; *Rivista d'Arte*, Jan. 1905. 3. 1459. Reggio d'Emilia. On a sculptured lunette in the Museo Civico. Venturi, *Storia dell'Arte italiana*, vi, p. 816. 4. 1471. On a statue of the Madonna by Francesco Laurana at Noto (Sicily). Rolfs, *Franz Laurana*, pl. 39. 5. 1474. On a

¹ See also Supplementary Tables L, LI.

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bust of Pietro di Francesco Mellini, Mus. Naz., Florence. Mr. Walter Ashburner, who kindly sends a note of this example, says that the whole inscription (which is *inside* the bust) is AN · 1474 | PETRI · MELLINI · FRANCISCI · FILII · IMAGO · HEC, and that while the second line is the work of a practised stone-cutter, the date is simply scratched in; it is, he thinks, though not part of the inscription, contemporary, perhaps done by the artist himself. 6. c. 1495. On the Loggia di San Paolo, Florence, under the two busts by Andrea della Robbia at the West and East ends of the series on the façade. The inscription is DALL' ANNO 1451 ALL' ANNO 1495. (Communicated by Mr. Walter Ashburner.) The left-hand (western) portion is illustrated in M. Reymond, *Sculpt. Flor.* ii, p. 182.

TABLE XLVII. ITALIAN. PRINTED BOOKS, ENGRAVINGS, ETC.

1. So-called "Tarocchi of Mauteugna". From series in the British Museum. These are not really playing cards. The first series (according to the arrangement adopted in the British Museum) is as early as 1467; the second (see no. 2, and the 6 and 7 in no. 1) may be 10 to 20 years later. But according to Kristeller this supposed second series is really the first. Apart from other reasons against this inverted arrangement, it may be noted that the numerals in the "Arithmetic" are more likely to have been added than removed in a second series. On these engravings see A. M. Hind, *Catalogue of Early Italian Engravings in the British Museum*, p. 224. 2. On a tablet held by figure of Arithmetic, on the so-called Tarocchi cards (one of the copies; the original series is without it). The tablet gives the numerals from 1 to 10, and abbreviations which have been read as a date 14085, but which seem to represent a sum of money (perhaps L(ire)40 S(oldi)5). From a specimen in the British Museum. 3. 1478. Treviso Arithmetic. D. E. Smith, *Rara Arithm.*, pp. 5, 6. 4. 1479. Venice, J. Marchesinus, *Mammotrectus*. British Museum, I A 19729. 5. 1484. Venice, Regiomontanus, *Ephemerides*. British Museum, I A 20533. 6. 1491. From Calander's Arithmetic, Florence, 1491. D. E. Smith, *op. cit.*, p. 47. 7. 1492. From Pellos' Arithmetic, Turin, 1492. Smith, *op. cit.*, p. 51. 8. 1509. Italian engraving (Paris and "Egenoe") after a German original, which accounts for the forms, especially of the 5. British Museum, v. 1-44.

TABLE XLVIII. INSCRIPTIONS FROM RHODES.

1. 1447. Graffito in Phileremos crypt. Belabre, *Rhodes of the Knights*, pp. 186, 187. 2. 1457. Graffito in chapel on top of tower on rampart. Belabre, p. 92. 3. 1459. Graffito in Phileremos crypt. Belabre, p. 186. 4. 1489. Shield on outwork of Spanish Tower, with arms of Pierre d'Aubusson. Belabre, p. 58. 5. 1490. Inscription of Cardinal Pierre d'Aubusson. Rottiers, *Monumens de Rhodes*, pl. lxxiv. 6. 1492. Inscription of Aymery d'Amboise. Rottiers, *Monumens de Rhodes*, pl. liii, fig. 9. 7. 1494. Graffito in Phileremos crypt. Belabre, p. 187. 8. 1495. Inscription of Cardinal Pierre d'Aubusson. Rottiers, *op. cit.*, pl. lxiii. 2. 9. 1497. Shield of Vilaraguts on a house. Belabre, p. 149. 10. 1502. Funerary slab of Thomas Newport, Spanish Tower. Belabre, p. 59. 11. 1506. Graffito in Phileremos crypt. Belabre, p. 186. 12. 1509. Slab in Street of the Knights. Belabre, p. 121. 13. 1511. Tombstone of Nicolas de Monmirel in courtyard of old Konak. Belabre, p. 164. 14. 1515. Shield of Carretto, Gate of Athanasios. Belabre, p. 66. 15. 1517. Shield of a knight. Belabre, p. 149. 16. 1518. Shield of Prior Flota, Street of the Knights. Belabre, p. 108. 17. 1519. Inscription of Jean Cleron in the Street of the Knights. Belabre, p. 109. 18. 1520. Shield on a house in the Street of the Knights. Belabre, p. 106.

TABLE XLIX. GERMAN (SUPPLEMENTARY).

1. 1383. Wertheim. Outside nave of the Evangelical Church. Mr. Lockner, who supplies the rubbing, questions the antiquity of the date; but the forms are excellent. 2. 1419.

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Wertheim. Outside tower of Evangelical Church. Rubbing by Mr. Lockner. 3. 1484. On a stone formerly in the possession of the Historischer Verein, now in the Fränkisches Museum at Würzburg, with a scene from St. Luke i. 26 ff. From a rubbing by Mr. Lockner. See Denzinger, p. 170. The 8 is broken away below. 4. 1492. Wertheim. Rathaus, outside wall. Rubbing by Mr. Lockner. The form of the 1 is not clear to me. 5. 1493. On the stone brackets supporting the figures of Adam and Eve by Riemenschneider, in the Fränkisches Museum, Würzburg. Rubbings by Mr. Lockner. 6. 1497. On arch of passage through the Choir in the Church of St. Burkard, Würzburg. Denzinger, p. 170. From a drawing by Mr. Lockner. 7. 1498. Very neatly cut on a pillar in the church of the Monastery of Brombach near Wertheim. Drawing by Mr. Lockner. 8. 1514. In the Fränkisches Museum, Würzburg; armorial slab of Bishop Lorenz von Bibra, from the old Landgerichtsgebäude. From a rubbing by Mr. Lockner.

TABLE I. MISCELLANEOUS AND SUPPLEMENTARY. XIII-XV CENT.

1. circa 1260? Astrolabe in British Museum. The style of the numerals would be equally possible, if not more probable, at a rather later date. 2. 1276. MS. Cambridge University Library, *Ii* 3. 3. Treatise on the astrolabe by Macha-allah (Astrolabium Messehalle). See W. E. A. Axon, *Proc. Manchester Lit. and Phil. Soc.*, 1876, p. 175; and W. W. Skeat's ed. of Chaucer's *Treatise on the Astrolabe* (E. E. T. S. and Chaucer Soc., 1872), pp. xxiv and 88 ff. Mr. S. C. Cockerell, who kindly supplied a note of the forms of the numerals, is inclined to suggest Liège or neighbourhood as the source of the MS. 3. 1326. Astrolabe in the British Museum bearing this date. 4. 1342. Astrolabe in the British Museum, signed "Blakene me fecit anno doⁱ 1342." Mentioned *Arch. Journ.* xi. 30. 5. 1391. Painting (triptych) by Spinello Aretino at Florence (R. Galleria Antica e Moderna: Virgin and Child and SS. Paulinus, John Baptist, Andrew, and Matthew). In relief below central panel. From a photograph. Communicated by Mr. A. H. S. Yeames. The lettering is the same as on the halo of the Virgin. The inscription appears to be HOC · OPVS · PINXIS · SPINELLVS · LVCE · ATITIO · IO · 1 · A · 1391. Mr. Yeames remarks that it may have been added or touched up at a later date, but has not that appearance. 6. 1410. Seal of Fountains Abbey. Impression attached to document of 1424 at Durham. See J. R. Walbran, *Memorials of the Abbey of St. Mary of Fountains* (Surtees Society, 1863), p. lxix. Communicated by Mr. W. H. St. John Hope. 7. 1417. On the under side of the base of a chalice of gilt metal with silver bowl and four small nielli around the knop. *Arch. Journ.* xi, p. 72 (where it is read 1517). The provenance is not stated. 8. 1444. Florence, Santa Trinità. Inscription on sarcophagus of Giuliano Davanzati. 9. 1451. Armorial tablet of Ludovico dei Caccialupi of Bologna, Podestà of Florence, 1451. Court of Bargello, Florence. 10. 1451. Flemish painting (Angel of the Annunciation), at present in the possession of the Spanish Art Gallery. Although the forms seem flatly to contradict most of the other Flemish evidence, I have included this example. The picture came from Spain. Communicated by Mr. E. D. MacLagan. 11. 1452. German painting (1580-'55; *Annunciation*) in the Victoria and Albert Museum. Communicated by Mr. E. D. MacLagan. The date is written on a slant. It has generally been read 1472, but there can be little doubt that the figure which has been taken for a 7 is a 5. 12. 1453. Portable brass sundial (German) in British Museum.

TABLE II. MISCELLANEOUS AND SUPPLEMENTARY. XV-XVI CENT.

1. 1461. Italian (Florentine) engraving in the British Museum (Easter Table). A. M. Hind, *Catalogue of Early Italian Engravings*, A. i. 9. Communicated by Mr. Hind. 2. 1467. Bruzzano, near Milan. Carved on entrance of a villa. *Rassegna d'Arte*, 1903, p. 88. 3. 1470. Armorial tablet of Iohannes de Panaleutiis of Cività Castellana, Podestà of Florence,

1470. Court of Bargello, Florence. 4. 1485. On Isbury's Almshouses, Lambourne, Berks (Rubbing, Soc. of Antiquaries). Communicated by Mr. Mill Stephenson. The 5, which is imperfect on the rubbing (and on the original?), is of the h-shape usual at this time in England.
5. 1489. On painted panels in south aisle of Choir of St. George's Chapel, Windsor. Communicated by Mr. W. H. St. John Hope. 6. 1491. Viennese astrolabe in the British Museum, made by "Pruder Hanns Dorn Prediger Orden von Wien anno Domini 1491". 7. 1492. Hurley, Berks. Brass of John Doyly. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson.
8. 1492. Stanford Rivers, Essex. Brass of Thos. Greville. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson. 9. 1497. Quarry in window at St. Cross. *Journ. Brit. Arch. Assoc.* ix (1854), pl. xxxiv; *Arch. Journ.* 1850, p. 76. Drawing by Mr. Mill Stephenson. 10. 1497. "Anathema" cup at Pembroke College, Cambridge. From a rubbing by Mr. Ellis Minns. On the under side of the foot. The inscription is given by Mr. Minns: "T. langton Winton eps aule pembrochie olim foci⁹ dedit hanc tasseā cooptā eidē aule ·1·4·9·7" and also "qui alienauerit anathema sit. lxxvii. m̃c." See also J. E. Foster and T. D. Atkinson, *Old Cambridge Plate*, p. 6, no. 8. The hall-mark is of 1481-2. The top is lost. 11. 1498. Norwich, St. Stephen's. Brass of John ffrankish. (Rubbing, Soc. Antiq.) Communicated by Mr. Mill Stephenson.
12. 1499. Bell (probably Flemish or Dutch) at Swinton in Berwickshire: see *First Report of Ancient Monuments Commission (Scotland)*, p. 49, No. 242. Communicated by Mr. George Macdonald. 13. 1513. Brading, I.W. Cut on stone in niche behind pulpit in the church. Communicated by Mr. Percy Stone. This has been read Mld13, but the M is really an \bar{A} , and the top bar of this letter has run into the top of the following l making it look like l; while the supposed d is an h-shaped 5 reversed. 14. 1522. Windsor. Below the paintings on north side of Oxenbridge Chapel, St. George's Chapel. Communicated by Mr. W. H. St. John Hope.
15. 1526. Window in South Mimms Church, Middlesex. T. Wright, *Essays*, ii, p. 81. 16. 1530. E. window in vestry, Enfield, on a medallion with the arms of Thomas Lord Roose. Gough ii (1), p. 140, and pl. xlix*. 17. 1531. On an English leaden token, probably of John Saltcot, Abbot of Hyde, 1530-1538. See *Journ. Brit. Arch. Assoc.* ix, p. 432.

IX.—*St. Paul's School before Colet.* By A. F. LEACH, *Esq., M.A., F.S.A.*

Read 25th November, 1909.

To talk of St. Paul's School before Colet will to most people seem pure absurdity. Even those who know there was such a school think that it was only a poor sort of choir-boys' school, and would be inclined to apply to it, *mutatis mutandis*, the famous Scotch bull on the roads in the Highlands:

If you'd seen these roads before they were made,
You'd hold up your hands and bless General Wade.

Yet in fact the difficulty in writing of St. Paul's School before Colet arises not from a deficiency but from a superfluity of material.

Immemorial custom prescribed, and the law of the Church, the canon law, in terms directed, that every cathedral church and every other collegiate church of sufficient means should maintain a grammar school. This grammar school was not only, or mainly, or indeed hardly at all, a choir school, a school for choristers, but was a school for the city, for the children of the citizens of the cathedral city, in which not singing and the psalms, not reading or the prayers of the Church, were taught, but the art or science of grammar and dialectic, that is to say, the classics, as the classics were understood at a time when Latin was the only door to both modern and ancient learning. There was indeed, equally of course, attached to every cathedral church, a song school, which was a real choir school, a school in which not only singing but elementary subjects, reading, and the rudiments of grammar were taught, and which was mainly, though not wholly, attended by the choir-boys, or queristers, as they were called in the fourteenth century, as they are at Winchester to this day. But the two schools were entirely distinct; were under different officers, and had no connexion with one another, except that they both belonged to the same church. While the song school was invariably called the song school, or the music school, the grammar school was called *par excellence* "the school", sometimes the school of the cathedral church, more often the school of the city. As the proper name of Winchester School is the grammar school of St. Mary's College by Winchester, but it is called Winchester *simpliciter*, so while the proper name of St. Paul's School was the grammar school of the cathedral church of St. Paul, London, it

was in early times called simply the School of London. Afterwards, when schools in London multiplied, it was called St. Paul's School; but both before and after Colet, St. Paul's School meant as it means now, not the choristers' school or the choir school, but the grammar school of St. Paul's cathedral church.

In the twelfth century, and until the reign of Henry VIII, a grammar school was commonly, and until about 1450, almost invariably spoken of in the plural, *scole grammaticales*, and the schoolmaster was *scolarum magister*. The reason I do not pretend to assign. People still talk of being "in the schools" at Oxford, when they are attending a single school, of classics, of history, or mathematics. In the middle ages they talked of attending "the grammar schools" and of the "schools master". Whether it was from the multiplicity of subjects taught in the single grammar school, or that the grammar school was emphatically the school of schools, I do not know. It is noteworthy because a great deal of misconception has arisen from the plural having been wrongly interpreted to mean more schools than one.

These dogmas be general. But they apply with all their force to the particular school of St. Paul's. How ancient St. Paul's School may be we cannot tell. All analogy is in favour of its being coeval with the church. As has been shown elsewhere, St. Peter's School at York, the cathedral grammar school, can trace its descent from the year 736. London is not so ancient as York, nor St. Paul's cathedral church as St. Peter's minster. But, just as at York the earliest existing records of the minster show St. Peter's School existing, so the earliest existing records of St. Paul's show St. Paul's School existing. The earliest actual records there as here are post-Conquest, but here, as there, these earliest records treat the existence of the school as a matter of course. In the case of York we have other evidence which shows the existence of the school in early English days long before the Conquest. In the case of Warwick grammar school, maintained by Warwick collegiate church, the earliest post-Conquest document refers to the school as existing in the days of King Edward before the Conquest. At St. Paul's School we have no direct evidence of this kind. But it cannot be doubted that the second city in the kingdom in point of rank, Winchester still being the nominal capital, and the first in point of wealth and population, had its grammar school, and did not lag behind the capital of the North, or a comparatively unimportant place like Warwick, in its public provision for secondary education.

The earliest direct record of St. Paul's School is a deed, a copy of which is preserved in the thirteenth-century chartulary or deed-book of St. Paul's, known as *Liber A pilosus* from its hairy white deerskin covers. It was executed by Richard I. de Belmeis, "by the grace of God, minister of the church of London,"

and addressed "to William the dean, and the whole assembly (*conventui*) of brethren":

Know ye, my dearest sons, that I have confirmed to our beloved Hugh, schoolmaster, in virtue of the dignity of his mastership, and to his successors in the same dignity, the place (*stationem*) of Master Durand in the angle of the tower, namely where Dean William, by my command, placed him, between Robert de Auco and Odo.

I grant to him also and to the privilege of the school the custody of all books of our church.

That is, the schoolmaster was also to act as librarian, and the letter goes on to direct that the keys of the bookcases near the altar, just made by the bishop's order, are to be given him.

Richard became bishop 1108, and died 1128. The deed is between 1111, when William became dean, and 1128, and probably not long after 1111, as the bishop was paralysed for some years before he died. The next document we have is addressed by the same bishop to the same dean, and, after the death or retirement of Hugh, grants to

Henry, my canon, foster-son (*nutrito*) of Master Hugh, St. Paul's School, as honourably as the church ever held it at its best and most honourable wise: and the land of the court which the aforesaid Hugh inclosed for his house there; and the meadow which I gave the said Hugh in Fulham, viz. four acres, from the ditch to Thames, at 12*d.* a year; and in alms (*i.e.* in perpetuity, rent free) the tithes of Ealing and the tithes of Madeley.

This document was printed in Knight's *Life of Colet*, with some odd mistakes. The actual deed itself is extant (plate XX, A), as well as the copy in the chartulary. In the chartulary these deeds, and others to be mentioned, are headed: "Of the schoolmaster and chancellor, seven deeds," and in a later deed by Bishop Richard III., 1189 to 1198, a thirteenth-century hand has written: "Note of tithes granted to the schoolmaster of St. Paul's, now the chancellor." We have, therefore, direct evidence that the schoolmaster was afterwards called the chancellor, as at York we have conversely a statement in the fourteenth-century statutes that the chancellor was "formerly called the schoolmaster". When exactly the change of title began is not clear. For both at York and London, as at Edward the Confessor's foundation of Exeter cathedral church, and Harold's foundation of the collegiate church of the Holy Cross at Waltham, the title used was schoolmaster. But at Salisbury, a post-Conquest creation, the foundation statutes of the Norman bishop, "Saint" Osmund, about 1090, call him alternately chancellor and *archischola*, or schoolmaster. At St. Paul's the title chancellor prevailed from 1205 onwards.

The tower, by which Canon Durand built, was, as Dugdale says, the "clochier or bell-tower" which stood at the east end of St. Paul's. It was detached, like the towers of Chichester cathedral church and New College, Oxford, and many of the old campaniles. Its bell was used as the town bell as well as the church bell, to

summon the citizens to their folk-moots in the old *forum* or market-place on the north-east side of St. Paul's where Paul's Cross afterwards stood. The school, separated by the tower from the market-place, was thus in the very middle of things, between the two chief places of assembly, the chief church and the chief market. A later writer, Miss Hackett, attempted to correct Dugdale and transported the school outside the close and churchyard altogether, and half the length of the church westward, placing it down a back lane in a far less accessible site. She quoted in support a deed of Eustace, count of Boulogne, granting to the bishop "a mansion-place, whence Canon Durand had removed (*abstulerat*) his house because of the earl's claims on it". The quotation destroys her argument, as it shows that, while the canon had originally built outside the churchyard on the south, he had moved to a site further east, which the bishop gave him. Here, in the churchyard and not outside it, at the east and not the south of it, we find the school in the fifteenth century; and when Colet built his new school in the sixteenth century he built, as we shall see, next door to the old school. Miss Hackett has in this, as in other things, confounded the grammar school with the choir-boys' house, and, by consequence, the schoolmaster with the choir-boys' master.

Canon Henry, the schoolmaster, Hugh's successor, was the hero of a document of a remarkable kind, the original of which is also extant at St. Paul's (plate XX, B). It is very short:

Henry, by the grace of God, minister of the church of Winchester, to the chapter of St. Paul's, and William the archdeacon, and their ministers, health.

I command you by your obedience that, after three summonses, you pronounce sentence of excommunication against those who without the licence of Henry the schoolmaster presume to lecture, in the whole city of London, except those who teach the schools of St. Mary-le-Bow and St. Martin-le-Grand.

The historian Dugdale's comment on this runs, "Which Henry was so respected by Henry de Blois, Bishop of Winchester, that he commanded none should teach school in London without his licence except the schoolmasters of St. Mary-le-Bow and St. Martin-le-Grand." It does not seem to have struck him as odd that a bishop of Winchester should have power to issue decrees to the city of London, nor that the decree itself was a somewhat remarkable way of showing respect to a schoolmaster's ability. The simple fact is that the schoolmaster at St. Paul's, like the schoolmasters of the grammar schools of all other cathedral and collegiate churches, enjoyed a monopoly of keeping school within the district ecclesiastically governed by the church to which he belonged. The decree was not due to any special respect which Bishop Henry of Winchester entertained for Schoolmaster Henry of London. It was issued in the ordinary course of business by the bishop, who was, by commission from the Pope, in charge of the

diocese of London from 1138 to 1140, during the vacancy of the see, to enforce the legal monopoly of St. Paul's School against some unspecified rivals. Similar documents in the thirteenth and fourteenth centuries, enforcing a like monopoly by threats of excommunication, could be cited from York, Canterbury, and Beverley. At Winchester the same Bishop Henry was concerned in a similar case about this time, in which the Winchester schoolmaster enforced his monopoly against a rival who appealed to the Pope himself, while an attempt at the same thing was made there far on in the seventeenth century. The reason for the exemptions of St. Martin's-le-Grand and St. Mary-le-Bow from the monopoly was not that Henry of Winchester "specially respected" the schoolmasters there, but that St. Martin's-le-Grand, being an ancient collegiate church of Early English origin long before the Conquest, and reckoned as a "Royal Free Chapel", was exempt from the jurisdiction of the bishop, the ordinary. So was the church of St. Mary-le-Bow, or of the Arches, the seat of the court of the Arches, as a "peculiar" of the Archbishop of Canterbury. Both, therefore, could keep grammar schools in their precincts, and did unhindered by St. Paul's, and some of their masters are mentioned in the thirteenth and fifteenth centuries.

In a famous description of London, written about 1170, prefixed to a biography of his former master, Thomas à Becket, Fitzstephen, clerk and judge, bears singular testimony to the fact that these three schools were the only recognized schools of London. In London he says

The three chief churches have well-frequented schools of ancient privilege and dignity; though sometimes, through personal favour to some one famous in philosophy, more schools are allowed. On feast days the Masters hold assemblies at the churches *en fête*. He then describes how the elder students hold disputations in logic and rhetoric, while

the boys of the different schools vie with each other in verses; or dispute on the principles of grammar, or the rules of preterites and supines (*i. e.* syntax, which was not then a part of grammar, but of dialectic); others, in epigrams, rhymes, and verses, use the old freedom of the highway, with Fescennine licence freely scourge their schoolfellows without mentioning names, hurl abuse and fun at each other, with Socratic wit gird at the faults of their schoolfellows, or even of their elders, while the audience wrinkle their noses as they roar with laughter.

The last words are a quotation from Persius, by this twelfth-century author, who, according to most writers on early schools, could have only learnt at a choir school to stumble through the Psalms. Becket must have attended St. Paul's School under Schoolmaster Henry. He was born in a house on the site of which now stands the Mercers' Hall, and Fitzstephen describes how, having "passed the years of his infancy, boyhood, and youth at home, and attended the school of the city, he when a young man studied at Paris". That is, while Becket was a boy,

about 1118, he attended St. Paul's School as a day-boy; when he became a young man, he was, as was then customary for aspiring literates, sent to Paris University; the first symptoms of Oxford University not appearing until some twelve years afterwards.

Fitzstephen's mention of the three principal churches which kept schools has given rise to some very wild guessing. The learned Stow rightly attributed the chief school to St. Paul's. But he assigned the other two to Westminster Abbey and St. Saviour's at Bermondsey, oblivious of the fact that neither of them was in London. Both were monasteries, which did not keep public schools, and were forbidden to do so except for their own novices. Many later documents, as well as the letter in favour of Schoolmaster Henry's monopoly, show that he was clearly wrong. There is no trace of any school at Westminster till the reign of Edward III, and then only of twelve charity boys in the almonry of the monastery. Among the statutes of St. Paul's, collected by Dean Baldock between 1294 and 1304, is one "Of the office and power of the chancellor". By this time the chancellor had ceased to teach school in person; and his duties as regards it were only "to appoint an M.A. to the grammar school, and to keep the school in proper repair", his principal office being, like the chancellor of the kingdom, to keep the seal and prepare legal documents. The statute says, "Under him are all scholars living in the city, except those of the Arches and St. Martin-le-Grand, who claim to be privileged in this as in other things." At the time of these statutes, the chancellor still had to make out the table of readers of the lessons in the church, to hear the readers so that they did not make mistakes, and to keep the clerks of the choir in order. A later statute, the date of which does not appear, headed "Of the grammar schoolmaster", says, "the schoolmaster, as vice-chancellor, is to write, or get written, the table of lessons." In the same statute the precentor and his deputy, the song schoolmaster, appear separately. It is expressly provided that the grammar schoolmaster "is to attend choir in a fitting habit, and read the first lesson on double [*i.e.* the greater] feasts, and to hear those who are to read and correct their mistakes. Also, according to custom, he is to hold disputations of dialectic and philosophy at St. Bartholomew's on St. Bartholomew's Day, and dispute at Holy Trinity."

Stow, who wrote in 1590, describes the disputations of schoolboys at St. Bartholomew's as having still gone on in his boyhood. The boys, he says, repaired

unto the churchyard of St. Bartholomew, where upon a bank boarded about under a tree, some one scholar hath stepped up and there hath apposed (the examiners at Winchester are still called posers, and the prize day at St. Paul's School itself is still called apposition day) and answered, till he were by some better scholar overcome and put down; and then the overcomer taking the place did like as the first, and in the end the best apposers and answerers had rewards.

The reason for the selection of St. Bartholomew's, Smithfield, was that, as appears from Fitzstephen, Smithfield, that "suburban level", as he calls it, was the usual resort of London, and especially schoolboy London, for all forms of sport and amusement. Here, even in the twelfth century, on Shrove Tuesday, after a cock-fight in the school in the morning, they played football; on its flooded marshes they skated on skates made of flat bones, such as are still to be seen in plenty in the British Museum and in the museum at York. It was not because St. Bartholomew's was a priory, but because it afforded an open space, that Smithfield was the resort of the schools of London. The boys resorted there before the priory was built, and continued to resort there afterwards, when Smithfield was gradually surrounded by St. Bartholomew's priory, hospital, and other buildings.

Right down to the time of Henry VI. St. Paul's with St. Martin's-le-Grand and the school of the Arches were the only recognized public schools of London. Unfortunately, nearly all the records of St. Paul's cathedral church from the fourteenth century till after the Reformation have disappeared. One solitary chapter act book, or minute book, in the middle of the fifteenth century survives, but it is almost entirely concerned with continual renewals of leave of absence to residentiary canons, the distribution of profits among them, and the correction of vicars choral for devotion to the forbidden sex. There has been a total disappearance of books of the kind which have enabled the grammar school at York to be traced continuously from the thirteenth century to the present time.

A transcript of one book has, however, been preserved which ought to have hindered writers on the subject of St. Paul's School from confounding the grammar school with the choristers' school. This is a copy of "the register of the almonry of St. Paul's".¹ To the early cathedral churches a hospital or almshouse was as essential an appendage as a choir and a grammar school. Some of these hospitals still survive. The Dean of Hereford is still *ex officio* Master of St. Ethelbert's Hospital, attached to St. Ethelbert's cathedral church. York had its St. Peter's Hospital, afterwards called St. Leonard's Hospital, the ruins of the chapel of which yet stand a stone's-throw from the minster. St. Paul's had its almonry, a Norman French word for almshouse, and its almoner. In some cathedral statutes made in 1263 the almoner was enjoined to distribute alms according to the method ordained by those who gave endowments for the purpose; poor people and beggars, who died in or near the churchyard, he was to bury gratis without delay. He was to have, moreover,

daily with him eight boys fit for the service of the Church, whom he is to have instructed either by himself or by another master in matters pertaining to the service of the Church and in literature (*i. e.* grammar) and good behaviour, taking no payment for the same.

¹ Brit. Mus. Harl. MS. 1080.

Long before this, in the deanery of Ralph de Diceto, between 1180 and 1200, it was ordered that, "as the boys of the almonry ought to live on alms" (or, as we should say, "charity boys are to live on charity"), "they are to sit on the ground in the canons' houses, not with the vicars at table." The resident canons on certain days had to entertain the choir-singers, or vicars choral and choir-boys at dinner. The reason is assigned "lest they become uppish and when they go back to the almonry despise the food there and blame their master". Now these almonry boys were the choir-boys, who learnt singing in the choir school, which the precentor had to maintain. But, as the fourteenth-century almoner records, against himself, in his register:

If the almoner does not keep a clerk to teach the choristers grammar, the school-master of St. Paul's claims 5s. a year for teaching them, though he ought to demand nothing for them, because he keeps the school for them, as the treasurer of St. Paul's once alleged before the dean and chapter is to be found in ancient documents.

The attempt thus made by the treasurer to make the grammar school into a choir school thus early is curious. The allegation that the grammar school was kept for the choristers is historically untrue, though it is probably true that the choristers ought to have been admitted free to it. At Beverley, in 1312, when the grammar schoolmaster wished to make all choristers beyond seven, the original number, who attended the grammar school, pay fees, the succentor, the song schoolmaster, contended that he was bound to teach all the choristers free. After inquiry by the chapter into the "ancient customs" of the church, it was decided that the grammar schoolmaster was bound to teach them gratis, but the succentor was not to defraud him by admitting boys to the choir merely for the sake of getting free education in the grammar school. Whatever may have been the choristers' rights in the matter, the fact that the grammar schoolmaster at St. Paul's claimed and received payment for them shows with absolute conclusiveness that the grammar school was not a mere choir school, or choir-boys' school.

Yet Mr. Lupton, the late surmaster of St. Paul's School, in his *Life of Colet*, cites the will of one of the almoners, William of Tolleshunt, made in 1329, in favour of those almonry boys, as proof that the cathedral school "not only existed and flourished but contained within itself the germs of a University". By the will in question this almoner gave a shilling to each senior and sixpence to each junior of "the boys of the church whom I educated in the almonry", and also gave them his grammar books "and the volumes of boy-bishops' sermons, preached in my time, to remain in the almonry for ever for their use". Says Mr. Lupton: "There were works on Logic, on Physic, on Medicine, on Civil Law . . . all were expressly bequeathed to the use of the boys." Yes: but while

the grammar books were for the use of the boys in the almonry, these other books were "to be lent to boys apt for school learning, *when they have left the almonry*, due security being given for their return". So that the very words cited to show that this school was something more than a grammar school prove the exact opposite; and this very will cited to show that the school in question was St. Paul's cathedral grammar school shows that it was a distinct foundation and intended only for the eight choir-boys in the almonry. That these eight boys, afterwards increased to ten, were the choir-boys, is shown by the fact that, in 1315, Bishop Richard of Newport gave to this very William of Tolleshunt, almoner, one of his executors, and to the almoner for the time being, a house near St. Paul's, "for the support of one or two of the almonry boys for two years after they have changed their voices." In lists of payments at obits and on anniversaries, the boys are sometimes called the almonry boys, sometimes the choristers. Mr. Lupton in this matter has been misled by a learned lady, Miss Hackett, who devoted herself in the first quarter of the nineteenth century to the interests of the choir-boys of St. Paul's, who then were left without any proper schooling or care at all. She, with great energy, routed out all she could find in the records of St. Paul's, and succeeded in establishing in the Court of Chancery the claims of the choir-boys on the revenues of the almonry. But her zeal outran her discretion, as whenever she saw anything about a school, or schoolboys, she at once attributed it to the choir school and choir-boys. She attacked the chancellor as well as the almoner, on the ground that the St. Paul's grammar school was for the choir-boys. In this she failed, being, of course, hopelessly wrong. But she did a great deal of harm to the cathedral grammar schools in general by imbuing people with the notion that they were mere choir schools. Mr. Lupton has followed her into other mistakes. Thus he makes the grammar school to have been "in Sharmoveres [now Sermon] Lane". Sharmoveres is a name of naught. It is simply a misreading of "Sarmoners", *i.e.* Sermoners' Lane, from a house which is said, in a document of Edward I.'s reign, to have belonged to "Adam le Sermoner". Sermon Lane is the modern shortening. What Mr. Lupton calls the grammar school was not a school, but the house above mentioned, bequeathed to the almonry. Sermon Lane is on the south side of St. Paul's, about the middle of the church. The grammar school was, as we have seen, right at the east end in the churchyard, and quite close to the church; the almonry itself was north of the church.

From 1345, the date of the almonry register, in the absence of cathedral documents, we do not hear of the grammar school again specifically until 1393. In that year a petition was presented to the king in Parliament by the Archbishop of Canterbury, the Bishop of London, the Dean of St. Martin's-le-Grand,

and the Chancellor of St. Paul's, to assert the privileges of the three old schools, both in London and the suburbs, and to put down

certain strangers feigning themselves Masters of Grammar, not sufficiently learned in that faculty, who against law and custom hold general Schools of Grammar, in deceit and fraud of children, to the great prejudice of your lieges and of the jurisdiction of Holy Church.

They say that the three masters of the schools of St. Paul's, of the Arches, and St. Martin's, "had proceeded against the said strange masters in Court Christian, who had gone to the secular courts for an inhibition." They ask, therefore, for letters under the privy seal directed to the mayor and aldermen to command them, that

as well in consideration of the king's interest in the case by reason of his Free Chapel (St. Martin's-le-Grand) as of the prejudice to the archbishop, bishop, and others before mentioned, they do not intermeddle, nor attempt to stay the proceedings in the ecclesiastical court.

It would appear that there was need in London for more schools than the three privileged ones, as half a century later, in 1447, a petition was presented to Parliament by the parsons of four London churches: Allhallows the Great; St. Andrew's, Holborn; St. Peter's, Cornhill; and St. Mary's, Colechurch (the parson of whom was also Master of the Hospital of St. Thomas of Acon, now the Mercers' Hall) for leave to establish permanent grammar schools in their respective parishes, under the patronage and government of the parson for the time being. The preamble to their petition is extremely interesting, both as demonstrating beyond all doubt that St. Paul's School was not a mere choir-boys' school, and also as showing how widespread was, or had been, the provision for secondary education. They refer to

the great number of grammar schools that some time were in divers parts of this realm, besides those that were in London, and how few be in these days, and the great hurt that is caused of this, not only in the spiritual part of the Church, where oftentimes it appeareth too openly in some persons with great shame, but also in the temporal part, to whom also it is full expedient to have competent knowledge for many causes.

They then proceed

Forasmuch as to the City of London is the common concourse of this land, wherein is great multitude of young people, not only born and brought forth in the same city, but also of many other parts of this land, some for lack of schoolmasters in their own country for to be informed of grammar there, and some for the great alms of lords, merchants, and other, the which is in London more plenteously done than in many other places of this realm to such poor creatures as never should have been brought to so great virtue and cunning as they have, had it not been by means of the alms aforesaid. . . . Wherefore it were expedient that in London were a sufficient number of schools and good informers

in grammar, and not for the singular avail of two or three persons grievously to hurt the multitude of young people. . . . For where there is great number of learners and few teachers, and all the learners be compelled to go to the same few teachers, the masters wax rich in money and the learners poor in cunning, as experience openly sheweth, against all virtue and order of the public weal.

After this powerful attack on the system of monopoly, the petitioners got their bill, but in the very modified form that the schools were to be established "by the advice of the Ordinary or otherwise of the Archbishop of Canterbury for the time being". This private Act is said to have been the origin of the Mercers' School. It is extremely doubtful how much was done under the Act. A year before we find an ordinance by the Archbishop of Canterbury and the bishop, who was the ordinary for most of London, repeating the complaint of 1393, that

whereas many and divers persons not adequately learned in the art of grammar have presumed to keep common grammar schools in the City, thereby wickedly defrauding some boys, and their friends who maintain them at school.

They accordingly ordered that

there shall be five grammar schools only and no more in the said City, namely, one in St. Paul's churchyard, another in the church of St. Martin-le-Grand, a third in the church of Blessed Mary of the Arches, a fourth in the church of St. Dunstan's in the East, and a fifth in St. Anthony's Hospital.

These ordinances were confirmed by letters patent of the King, 6th May, 24 Henry VI., A.D. 1446. There is considerable doubt whether even the Mercers' School was established before 1540, and no evidence has been found of schools at All Saints', St. Andrew's, or St. Peter's, Cornhill. The archbishop and bishop probably nipped them in the bud. Half a century of struggle therefore resulted only in the addition of two to the number of the authorized grammar schools, and neither of those in the churches of the petitioners of 1447. St. Paul's continued to flourish. James Garnon, master of St. Paul's School, is mentioned as taking his degree in grammar at Oxford in 1449. An epigram by the "Schole-mayster at Paules" on Richard III.'s proclamation on the beheading of Hastings in 1483, is reported by Holinshed:

Here is a gay goodlie cast
Foul cast away for haste.

We now come to the Colet era, round which has gathered a cloud of confusion and error. In the Rev. R. B. Gardiner's *Register of St. Paul's School* it is written:

About the close of the reign of Henry VII. John Colet, Dean of St. Paul's, . . . commenced the work of educational reform in England by establishing a school in London,

which though originally founded in honour of "Christ Jesu *in puericia* and of his blessyd Mother Mary", soon became known (probably from the situation of its buildings) as St. Paul's School. Colet during his travels abroad had perceived the importance of the revival of learning and desired to equip the children of his own country to take their place by the side of the learned men of other nations.

Then follows a collection of dates, called "Fasti of St. Paul's School".

1508. The School was begun according to Alexander Nowel, and Polydore Virgil mentions its foundation at the end of his account of the reign of Henry VII.

1509. The School was begun according to Grafton and George Lily.

1510. The School was begun according to Holinshed and Cooper.

All this doubt about the beginning of the school is unnecessary, and the account of the origin of its name is as erroneous as the notion that with it Colet started any new era of education. In the Mercers' Records, from which Mr. Gardiner freely quotes, and for access to which some years ago I was indebted to Lord Selborne and Mr. (now Sir) John Watney, the whole story is told by Colet himself in the introduction to a book he had made containing copies of all the documents relating to the foundation of the school. After saying that he had inherited wealth from his father, and wished to spend it for the best purposes,

seeing in my judgment nothing better in this world nor more commodious to Christ's Church, that is to say, all Christendom, and for the reparation of the same now sorrowfully decayed both in good manners and clean literature than good institution and bringing up of children in wisdom and good living in good letters and laudable conversation, in the year A.D. 1508 began to edify in the East end of the churchyard of Paul's a school-house of stone for children to be taught, free, to the number of 153 . . . and also builded a mansion adjoining to the said school at the north side for the masters to dwell in. And in A.D. 1512 full accomplished and finished the same in every point.

A minute of the Court of the Mercers, on 17th August, 1510, copied in the book, gives even greater exactness. "The dean and chapter," it says, "had sealed a deed of estate by the which they (the Mercers) should receive possession of the ground whereupon the school-house *is* builded and the schoolmaster's house *shall* be builded." So that the school-house was begun in 1508, finished by August, 1510; and the master's house begun after that date and finished by 1512. The school was built before the legal proceedings connected with the foundation were begun. These began on 9th April, 1510, when the Mercers were told that Colet was "disposed for the foundation of his school to mortify", *i.e.* vest in the company under a licence in mortmain, "certain lands which he would that the company should have, if they would be bound to maintain the said school". After several interviews to satisfy the company that their pockets ran no risk, they agreed to take the governorship. On 6th June, 1510 (wrongly given by Mr. Gardiner as 1511), letters patent were issued by the Crown granting the

necessary licence in mortmain to the Mercers to take and hold lands for the use of the school and masters, of the value of £53 a year. On 27th July, 1510, the first legal documents were executed. They were just what we should expect if Colet was taking over and re-endowing St. Paul's cathedral grammar school, and not at all what we should expect if his was a totally new departure, an original creation, the establishment not only of a new school, but of a new system of education, where none had existed before. First came the consent of the chancellor of St. Paul's to the statutes and orders made and to be made by Colet for the school he has "erected in the churchyard", and a confirmation of the same by the dean and chapter. This, however, might be said to have been given only because of the general powers of chancellor and chapter over all schools in London. The same cannot be said of another document executed the same day by the chapter. This document begins with a recital of great historical interest from more points than one:

By ancient, lawful and laudable prescription, as well as by the statutes and laudable customs of the said cathedral church, the master of the grammar school of the said church of St. Paul's, London, for the time being, has always been a member of our body, and had the right of entry to the choir of the said church during divine service, and of a seat in a fitting stall in the accustomed place there, whether he is a priest or a layman, so long as he appears in a proper surplice.

A most interesting fact is that at St. Paul's, as at St. Peter's, York, and at Winchester College, it was in the fifteenth and sixteenth centuries by no means uncommon to have a lay head-master. The document seems almost to have been concocted for the purpose of correcting erroneous ideas about the school, as it then goes on carefully by another recital to distinguish the grammar school-master from the almonry schoolmaster:

And whereas both in his own person and for his own house or inn, he has always enjoyed the same liberty as the master of the house of the alms boys,

i.e. the choristers. The chapter then proceed:

Therefore we *take into our body and that of our church*, Master William Lyly, the first master of the new school of St. Paul's, and his successors in office, and that he and his successors may exercise their office quietly in the premises (the stall and services) and be diligent in the teaching of the boys . . . we grant that the master, the school, and the house may be free from all parochial exactions, and enjoy the same privilege as the alms boys' house of the said church enjoys, and that in that house they need recognize no curate except the cardinals of St. Paul's, from whom they ought to receive all sacraments and sacramentals.

Curate, of course, means a *curé*, a person with cure of souls; and the cardinals were the senior minor canons.

In consideration of this grant the Mercers' Company was to pay the chapter £3 a year. Nothing surely could be more conclusive than this. The dean and chapter recite the old customs applicable to the cathedral grammar school-master, and apply them to what they and Colet himself habitually call "the New School of Paul's".

Nor is that all. Six months afterwards, 28th March, 1511, the actual site and buildings were assured to three members of the company by two separate deeds. One of these granted the piece of land on which "is now built the house or grammar school of stone, with a house for the master", while the other granted "the grammar house or messuage, *lately* called St. Paul's School, near St. Austin's Gate, and the four shops underneath".

Thus it appears that the old cathedral grammar school was carried on in the old building right up to the time when Colet's new school was built close by it, and then the old school, "stock, lock, and barrel," with its buildings, rights and privileges, and belongings, not excepting its name, was transferred to the new school.

Here, again, the thread of the narrative must be broken to point out that Mr. Lupton and Mr. Gardiner represented Colet as having acquired the old school "by gift grant and confirmation from three members of the Mercers' Company named Osyer, Digby, and Rice", as if it had belonged to them, and was bought by Colet from them. The mere fact that there were three of them puts any lawyer on inquiry, whether they were not trustees. Such, Hosier (to give him back his aspirote) and the others were. In the two deeds mentioned they were the grantees from the dean and chapter, because Colet could not very well as dean convey to himself as Colet. They reconveyed the premises by a deed of 10th June, 1512, to Colet. He made his will 10th June, 1514, granting the lands to the company for the school, which will (he being a citizen of London) was duly enrolled in the Hustings Court of the City. On the same day in 1511 that the chapter granted the old school, the chancellor of St. Paul's, William Lichfield, released to the same three Mercer trustees all his interest in the "grammar house or messuage, lately called Poulis Scole", the last two words being in English. A few days afterwards, 5th April, the chancellor in another document informed all whom it might concern that

though during his term of office he had made all endeavours possible to learn what right he had to the four shops, over which, namely in the long chamber built over it, the old grammar school of St. Paul's, London, was held, or in the school itself, he could never ascertain that the chancellor had any right, or received any rent from them, but that they seemed to belong to the dean and chapter;

and therefore he had voluntarily made the release of the 28th March and con-

sented to the dean and chapter's grant of them "to the use of the New School in the churchyard of St. Paul's lately built". This was natural enough. Though the chancellor had the appointment of the master and control of the school, the school-house was provided by the chapter. As the chancellor did not get the profits of the shops under the school, he had also ceased to be liable for the repairs of it, as provided by the ancient statutes. Indeed, this is expressly stated by Colet to have been the case in the document next mentioned. It was the tendency in all cathedral and collegiate churches, owing to the increasing non-residence of the chancellors, for their duties in regard to the grammar school to be neglected and their rights forgotten. The then chancellor of St. Paul's did not even perform his own proper duty of lecturing on theology, for which the chancellorship had been specially endowed in 1309. He was non-resident, and when he was called to account by Bishop Fitz-James, *c.* 1507, said that the statute required "continuous residence and lectures" which was impossible, therefore he did not do it at all; to meet which plea the bishop solemnly altered the statute so as to provide that he should lecture three days a week, with two long vacations, one in the autumn, the other in the spring. The London chancellor was not singular in his neglect. The same thing happened at York. But the grammar schools could not be thus quietly dropped, and, in default of the chancellor, the appointment of the master and the care of the school devolved on the chapter, that is, the canons residentiary. It is clear that St. Paul's School had not ceased. For Colet applied to "the most Holy Father the Pope" for a bull confirming the exemption of his school from the jurisdiction of the chancellor of St. Paul's. His application described how "at his own proper cost he had caused to be built a certain school in the City of London in the place or churchyard of the cathedral church of London, a spot indeed which was the chief and most frequented, and as it were the very eye, of the City, where already there was a school, plainly of no importance, now rebuilt from the foundation in most beautiful stone-work and endowed". Now if the school was not going on at all, Colet would have said so, instead of going out of his way to sniff at it as a school of no importance. The sniff must be taken with all due allowance for the fact that the sniffer wanted to "reform" it. The better is the enemy of the good. Colet proves the existence of the cathedral grammar school, and that it was doing some good, by the very allegation that it was not doing all the good it might. After his endowment it was merged in the new school and ceased to exist.

As to the name of the school there is no adequate reason for thinking that it was ever intended to be anything but St. Paul's School or "the new School of St. Paul's". The notion that it was intended to be called the Jesus School, like Pursglove's foundations at Guisborough in Yorkshire and Tideswell

in Derbyshire, or the "Boy Jesus" School, or something of that kind has no solid foundation. The deeds invariably speak of the school as Paul's School, or the School in St. Paul's Churchyard (which was, by the way, the description of the old school in the ordinance of 1446), generally with the epithet of New, and there is little doubt that Colet's idea of its name was "the New School of Paul's". The insistence on its novelty in its title, like the title given by Henry VIII. to Warwick School, after its re-foundation on the dissolution of the collegiate church, of the "King's New School of Warwick", at once suggests that it was not new. Similarly the revised statutes of the school, made eight years after the deeds, in 1518, were signed with his own hand "Joannes Colet, fundator nove schole", while the first item in the schedule of property given in the statutes was "First, of the olde scole". The "old" school and the "new" school. Of what? Not of Jesus but of "Poule's". So in the copious minutes of the Mercers' Company relating to the founding of the school it is commonly called "the Scolle of Poules", sometimes "the Scolle at Poules" and "the Scolle in Poules Churcheyarde", and on the day in 1512 when Colet first produced the statutes of the school, "the newe Scolle at Poules". Paul's is always part of the title, Jesus never. The only colour for the suggestion that the school was ever called, or intended to be called, by the name of the Jesus School is that, in these statutes, Colet says that it was "founded in honour of Christ Jesu in His boyhood and of His Blessed Mother Mary". But no one has ever suggested that Winchester College was intended to be called Trinity College, or the Jesus College, or even Swithun College, because William of Wykeham in his foundation charter says he founded it "in the name of the highest and undivided Trinity, Father, Son, and Holy Ghost, to the praise, glory, and honour of the name of the Crucified, the most glorious Virgin His Mother, and the patrons of the cathedral church SS. Peter, Paul, Birinus, Eddi, Swithun, and Æthelwold".

It is true that on a tablet hung near Colet's tomb in St. Paul's were some verses which contained the line:

Quique scholam struxit celebrem cognomine Jesu,

"who built a famous school in (or with) the name of Jesus." It is said, but it does not appear on what authority, that these lines were by Lily. The fact that *scholam* is spelt with an h is strongly against this. Colet always spells it without. Anyhow, a poetic epitaph by an unknown hand, and of unknown date, near the tomb, is poor evidence compared with the prose inscription *on* the tomb, which said that Colet built and endowed, at his own sole charge, "scolam Paulinam", while in English, too, was inscribed on it "the only founder of Powle's School".

Indeed, if a new name had been given to this new-old school, it would rather have been that given to Winchester and Eton, St. Mary's School. For other lands, which it is said by some are now held by the Mercers instead of the school, were acquired by Colet and given to the Mercers in 1516, under separate letters patent, dated in 1512, for "the chantry of the Blessed Mary, patroness of boys", for a chaplain celebrating in the chapel of St. Mary, St. John the Baptist, and St. John the Evangelist, on the south side of the school, to pray, according to the usual formula, for the souls of the king, the founder, his friends and benefactors, but with the very unusual addition "for the increase of good literature, virtue and grace in the boys of the said school".

But it is clear that the school was called after neither the Mother nor the Son. It was called from the first, and was intended to be called St. Paul's School, or, in the less ceremonious phrase of the day, "the School of Poule's."

If Colet's school was not new in point of foundation, neither was it new in point of government or of education. A good deal has been made of his vesting the property and management in the Mercers, on the ground that "while there was no absolute certainty in human affairs, he found less corruption in a body of married laymen, like the Mercers, than in any other order or degree of mankind". There was force, no doubt, in this very strong expression in favour of laymen, coming from a priest and dignitary of the Church. But there was no novelty in the selection of married laymen or of a City company as trustees and governors of a school. If Holinshed is to be trusted, Sir Stephen Jenyns, Lord Mayor in 1508-9, had in 1508 built the grammar school at Wolverhampton, of which he made his company, the Merchant Taylors', governors; and it is more likely that his example inspired Colet, who only began his school in 1508, than *vice versa*. But even if that be not so, Jenyns was only imitating another Merchant Taylor Lord Mayor, in whose year Jenyns had been sheriff, Sir John Percyvale, who in 1502-3 had founded Macclesfield grammar school with local laymen as its governors and trustees, while Sir Bartholomew Read had founded Cromer grammar school in 1505 and made the Goldsmiths' Company its governors. The Goldsmiths had been made governors of Stockport grammar school, founded by another Lord Mayor, Sir Edmund Shaw, in 1487-8. And in truth there was an even earlier example in Colet's own company, John Abbott, citizen and mercer, having 19th June, 1443, given lands in London to the "Mistere" of the Mercers, making them trustees for a free school, a master to teach *libere et quiete* at Farnyngho, now Farthinghoe, in Northamptonshire. So that Colet in making a City company the governors of St. Paul's School was so far from making a new departure or creating a precedent that he was following one more than sixty years old. In selecting laymen as

trustees he was following a much older precedent, as guilds outside London had been the trustees of schools at least half a century earlier.

Nor was there any great novelty about the education to be given in the school. So far as Latin is concerned, though Colet talks a great deal about "the very Roman eloquence" and "true Latin speech, all barbarity, all corruption, all Latin adulterate being expelled", yet when he descends to details he only produces a list of authors, Prudentius, Proba, Sedulius, Juvenius, and Baptista Mantuanus, whose names are not known to classical scholars now, who are very "low" Latin indeed, and, with the exception of the last, are precisely the same as were enumerated by Alcuin at York in the eighth century, and by Vincent of Beauvais, a Dominican friar, in his treatise on education, written in the middle of the thirteenth century. Mantuanus was a friar of the fifteenth century who wrote eclogues in imitation of the great Mantuan Virgil, which were still used as a school-book in Shakespeare's day, and he makes Sir Hugh Evans quote it.

Colet's innovations were really two. First, a "catechizon", or catechism, in English, of Colet's own devising, which would a few years afterwards have been regarded as an odd mixture of heresy and orthodoxy, whether looked at from a Catholic or a Protestant point of view. The other innovation was the introduction of Greek by statute into the school as one of the possible requirements of the master, "lernyd in laten and also in greke yf suyche may be gotten". But the novelty was in the statute, not in Greek being taught.

The first English Grecist was William Grocyn, scholar of Winchester in 1463, Fellow of New College in 1467, where he sat under Cornelio Vitelli, an Italian lecturer, introduced by Warden Chandler. He himself after a sojourn abroad became the first English teacher of Greek in Oxford, in 1491. The younger generation of Wykehamists, Archbishop Warham, Nicholas Harpsfield, and other eminent Greek scholars and advancers of Greek, almost certainly learnt their Greek at Winchester. It is practically certain that under William Horman, a scholar of Winchester in 1468, Head Master of Eton 1485 to 1494, of Winchester 1494 to 1502, Greek was taught there. His *Vulgaria*, a sort of *Delectus*, published in 1519, but professedly reproducing school exercises given when he was head master, has many Greek phrases and references to Greek, even to the performance of a Greek play. Sir Thomas Pope, founder of Trinity College, Oxford, writing in 1556, says that, "when he was a young scolar at Eton, the Greek tongue was growing apace, the study of which is now much decayed." William Rightwys, or Righteous, the first surmaster of Colet's School, was an Etonian a little before Pope. As I have ventured to say in the *History of Winchester College*, "There can hardly be a doubt that the school of Grocyn, of Chandler, and of Warham, officially visited by the two latter, took the lead in the introduction of Greek into the curriculum

of schools," and was very soon followed by Eton. There was no need of a new school to introduce Greek to grammar schools any more than there was need of a new college to introduce it to the Universities. Greek had, as we have seen, already been studied at New College, when Fox, Visitor of it and of Winchester College, introduced it in his statutes at Corpus, his new college, in 1527. It could equally easily have been introduced into the old school of Paul's if Colet had so chosen. Was it provided for in the statutes of 1512, or only in those of 1518?

The introduction of Greek into the statutes of a school, and that school attached to a cathedral church, marks an era no doubt, seeing that Grecists at first were attacked as heretics; just as the introduction by name of the subject of Natural Science into the scheme for Bradford grammar school by the Endowed Schools Commissioners in 1870 marked an era, seeing that geology and natural selection had both in turn been branded as subversive of religion, and men of science as atheists. But though the Endowed Schools Commissioners marked a new era they did not start one. Before 1869 science had already been taught at Winchester, Eton, and Harrow, without the intervention of the State. So Colet, by his statutes, marked a new era by contemplating Greek as a school subject; he did not invent it as a school subject.

The fame of Colet's new endowment was due partly to his own fame and position, partly to that of the school which he re-endowed, but still more to the magnificence of the re-endowment. It is clear from the history we have traced that, before Colet, St. Paul's was a fee school. Colet made it a free school; and free not for 25 boys, as the Mercers' School was in 1541, nor for 70 boys only, like Winchester, but for no less than 153. The endowment was not so large as that of Winchester and Eton, and the Paulines were not lodged, boarded, and clothed, as well as taught, as were the young Wykehamists and Etonians. Nor was the school larger, as the Commoners at Winchester and Oppidans at Eton, partly boarders, partly day-boys, have also to be reckoned. But to the London citizen of those days the enlarged school, alike in buildings and constitution, was a foundation of the first rank.

None of the things, then, that Colet did in his foundation was novel in itself, neither the lay master, nor the lay governors, nor the freedom from fees, nor the magnitude of the endowment, nor the curriculum. But, taken altogether, founded with much flourishing of trumpets in the great city of London hard by the great cathedral church of St. Paul, and carried out in the cathedral grammar school itself, thus, after 400 years and more, significantly transferred from ecclesiastical to lay hands by the chief ecclesiastic of the cathedral church himself, the school made a great sensation, and may have seemed to the world at large a new departure.

The new school, however, was only the old school enlarged and reformed; or, as we should say, placed under a new scheme. So the present St. Paul's School, instead of being a mere mushroom of 400 years' growth, can establish an antiquity of at least 400 years more, and may reasonably claim a continuous existence as long as that of English London and its minster, from the time that Alfred expelled the Danes.

APPENDIX

GRANT OF MASTER DURAND'S STATION AND OF THE LIBRARIANSHIP TO THE SCHOOLMASTER, EX OFFICIO.

DE MAGISTRO SCOLARUM ET DE CANCELLARIO vij LITIERE, j.¹

[St. Paul's Mun. Lib. A.² f. xxviiij.]

c. 1111.

R. Dei gracia Londoniensis ecclesie minister, W. Decano totique fratrum conventui, Salutem et paternam benedictionem.

Noveritis filii mei karissimi vestra dileccio me Hugoni, Magistro Scholarum, ex Magisterii dignitate, suisque eiusdem dignitatis successoribus stabilisse firmiter Magistri Durandi stacionem in angulo turris, videlicet, ubi Decanus Willelmus meo illum collocavit imperio inter Robertum de Auco et Odonem.

Concedo eciam illi scholarumque privilegio nostre ecclesie omnium librorum custodiam.

Volo igitur, et tibi, Decane, precipio ut illos omnes in conspectu fratrum in quodam cyrographo ascriptos, cuius scilicet altera pars in thesauro custodiatur, alteram sibi retineat, ei commendes, et de hac custodia eum seisias, diligenter et sub anathemate investigans si aliqui librorum tam secularium quam divinatorum extra missi per aliquem fuerint; quod si fuerint, sub obediencia precipio ut retromittantur.

Fac eciam illi habere claves armariorum juxta altare, que ad illud opus fieri imperavi.

Marginal note. NOTA. Magistrum Scholarum debere custodiam librorum almariis habere.

APPOINTMENT OF CANON HENRY TO THE MASTERSHIP OF ST. PAUL'S SCHOOL.

DE COLLACIONE SCOLARUM.³

[St. Paul's Mun. Original (plate XX, A) in Press A. Box 25A, no. 1368, and copy in Lib. A. f. xxviiij (cf. Knight's *Life of Colet*, ed. 1724, p. 117).]

c. 1127.

Ricardus Dei gracia Londoniensis episcopus W. Decano totique fratrum conventui, et W. de Occhendonapapifero suo cunctisque suis hominibus, salutem et in Christo benedictionem.

Notum vobis facio, karissimi, me concessisse Henrico canonico meo, nutrito magistri Hugonis, scholas Sancti Pauli ita honorifice sicut unquam melius et honorabilius illas ecclesia habuit, et terram de atrio quam⁴ predictus Hugo ad se hospitandum sibi inclusit; et pratum quod eidem Hugoni in Foleham concesseram, scilicet .iiij. acras, scilicet quicquid est in illo loco a grava usque ad Tamisiam singulis annis pro xij denariis de recognicione in festo Sancti Michaelis, et in elemosina decimam de Ilingis⁵ et decimam de Madaleia⁶.

¹ Marginal heading at the top of the page.

² Liber A, called *pilosus* from its hairy deerskin cover, is a cartulary copied from the original documents in 1241.

³ Marginal heading.

⁴ Wrongly *quod* in Knight's copy.

⁵ Lib. A has "Ylingis" (Ealing).

⁶ Lib. A has Madeleya.

Testibus Willelmo de Wintonia,¹ et Willelmo de Occhendonā dapifero, et Hugone de Cancerisio. Valet.

Marginal note in Lib. A. NOTA.—Magistrum scholarum debere habere iiij acras prati apud Fulham et decimam de Yllinges et de Madeleya.

THE ACTING BISHOP OF LONDON ENFORCES THE MONOPOLY OF ST. PAUL'S SCHOOL, EXCEPT FOR THE SCHOOLS OF ST. MARY-LE-BOW AND ST. MARTIN-LE-GRAND (plate XX, v).

(Endorsed in a thirteenth-century hand: DE CANCELLARIO, and in a later sixteenth-century hand: "Excommunicacio contra omnes qui legunt in civitate preter licenciam magistri scholarum.")

[St. Paul's Mun. Press A. Box 60, no. 48, and Lib. A. f. xxix.]

1138-40.

H[enricus] Dei gracia Wintoniensis ecclesie minister capitulo Sancti Pauli et Willelmo archidiacono et ministris suis Salutem.

Precipio vobis per obedientiam, ut, trinam vocationem², sentenciam anatematicis³ in eos proferatis qui sine licencia Henrici Magistri scholarum in tota civitate Lunden legere presumpserint⁴ preter eos qui scholas Sancte Marie de Archa et Sancti Martini regunt. Teste Magistro Ilario apud Wintoniam.

Marginal note in Lib. A. Nota quod scole non sunt tenende London nisi apud Beatum Paulum exceptis scholis Beate Marie de Arcubus et Sancti Martini Magni.

[Chronicle of Ralph de Diceto (Rolls Series), i. 252.]

1138. Dominus Papa curam ecclesie Lundeniensis Henrico commisit Wintoniensi Episcopo cum gracia Regis.

1140. Imperatrix a Lundeniensibus recipitur in Dominam, per quam Robertus de sigillo factus est Lundeniensis episcopus.

LONDON SCHOOLS IN THOMAS À BECKET'S BOYHOOD.

[*Materials for the History of Thomas Becket, Archbishop of Canterbury* (Rolls Series, 67), vol. iii. William Fitz-Stephen's *Vita Sancti Thomae*.⁵]

p. 3 (7). Sunt etiam circa Londoniam ab aquilone suburbani fontes præcipui, aqua dulci, salubri, perspicua, et per claros rivo trepidante lapillos; inter quos Fons Sacer, Fons Clericorum, Fons sancti Clementis, nominationes habentur, et adeuntur celebriore accessu et majore frequentia scholarium, et urbanae juventutis in serotinis aestivis ad auram exeuntis. Urbs sane bona, si bonum habeat dominum.

p. 4 (9). In Londonia tres principales ecclesie scholas celebres habent de privilegio et antiqua dignitate.⁶ Plerumque tamen favore personali alicujus notorum secundum philosophiam plures ibi scholae admittuntur. Diebus festis ad ecclesias festivas magistri conventus celebrant. Disputant scholares, quidam demonstrative, dialectice alii; hi rotant enthymemata, hi perfectis melius utuntur syllogismis. Quidam ad ostentationem exercentur disputatione,

¹ Lib. A has *et aliis* for the other names, and omits *Valet*. The seal, with figure of the bishop with crozier in the left hand, is attached by parchment thongs.

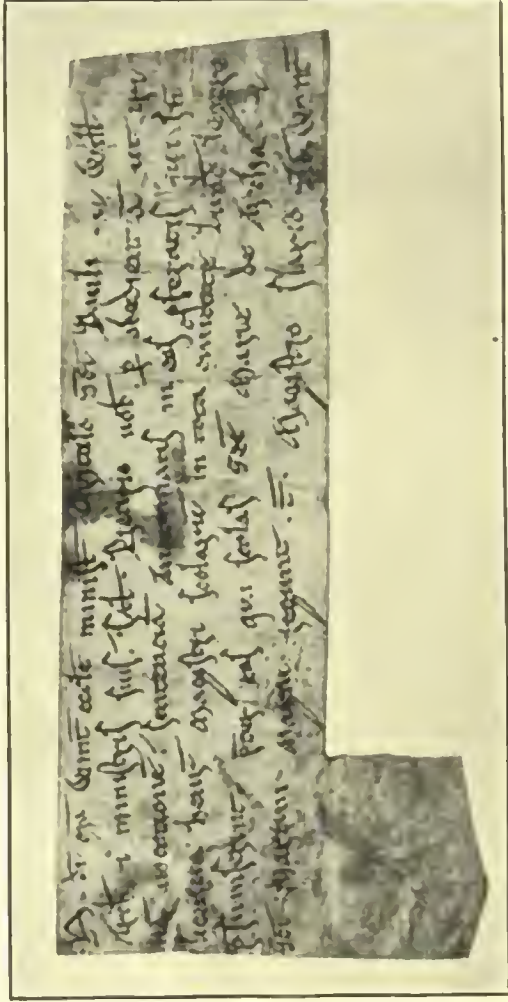
² post trinam vocationem (Lib. A).

³ anathematicis (Lib. A).

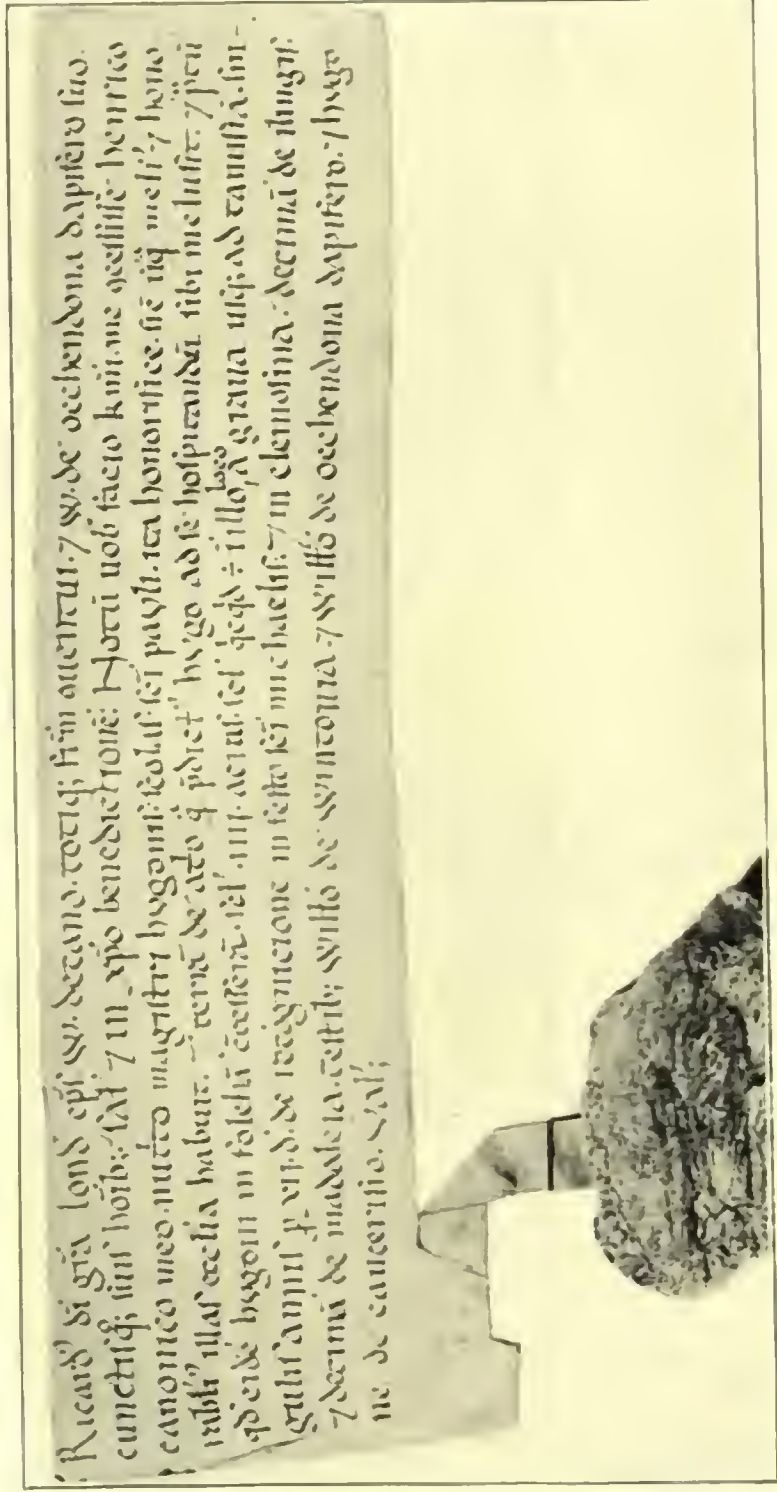
⁴ presumpserint (Lib. A).

⁵ The spelling is given as in that edition, not as in the original.

⁶ Videlicet, sedes episcopalis ecclesia S. Pauli, ecclesia S. Trinitatis, et ecclesia S. Martini, printed in *Munimenta Gildhall*. Lib. Customarum, ii. 5. The second is a mistake; it was St. Mary-le-Bow.



13



A

- A. GRANT BY RICHARD DE BELMEIS, BISHOP OF LONDON, c. 1111, TO CANON HENRY, OF ST. PAUL'S SCHOOL, ETC.
B. DECREE OF HENRY, BISHOP OF WINCHESTER, c. 1140, TO ENFORCE THE LEGAL MONOPOLY OF ST. PAUL'S SCHOOL.

Published by the Society of Antiquaries of London, 1910

quae est inter collectantes¹; alii ad veritatem, ea quae est perfectionis gratia. Sophistae simulatores agmine et inundatione verborum beati iudicantur; alii paralogizant. Oratores aliqui quandoque orationibus rhetoricis aliquid dicunt apposite ad persuadendum, curantes artis praecepta servare, et ex contingentibus nihil omittere. Pueri diversarum scholarum versibus inter se conrixantur; aut de principiis artis grammaticae, vel regulis praeteritorum vel supinorum, contendunt. Sunt alii qui in epigrammatibus, rhythmis et metris, utuntur vetere illa triviali dicacitate; licentia Fescennina socios suppressis nominibus liberius lacerant; loedorias jaculantur et scommata; salibus Socraticis sociorum, vel forte majorum, vitia tangunt; vel mordacius dente rodunt Theonino audacibus dithyrambis. Auditores,

multum ridere parati,
Ingeminant tremulos naso crispante cachinnos.

p. 9 (13). Praeterea quotannis, die quae dicitur Carnilevaria, ut a ludis puerorum Londoniae incipiamus (omnes enim pueri fuimus), scholarum singuli pueri suos apportant magistro suo gallos gallinaceos pugnaces, et totum illud antemeridianum datur ludo puerorum vacantium spectare in scholis suorum pugnas gallorum. Post prandium vadit in suburbanam planitiem omnis juvenus urbis ad lusum pilae celebrem. Singulorum studiorum scholares suam habent pilam; singulorum officiorum urbis exercitores suam fere singuli. Majores natu, patres, et divites urbis, in equis spectatum veniunt certamina juniorum, et modo suo juvenantur cum juvenibus; et excitari videtur in eis motus caloris naturalis contemplatione tanti motus et participatione gaudiorum adolescentiae liberioris.

p. 14. [Thomas à Becket.] Puerum cum pater in religiosa domo canonicorum Meritoniae priori Roberto aliquandiu nutriendum commendaverat. . . Annis igitur infantiae, pueritiae et pubertatis simpliciter domi paternae et in scholis urbis decursis, Thomas adolescens factus studuit Parisius.

THE SCHOOL BOYS ARE GIVEN 3D. FOR CHERRIES.

[St. Paul's Mun. Liber L. f. 20, printed in Hist. MSS. Com. Rep. ix. App. 62.]

c. 1142.²

Notum sit presentibus et futuris quod canonici Beati Pauli Londoniensis emerunt acram terre iuxta Sanctam Margaretam de qua tenentes v solidos prius habere solebant, pro xxvj marcis, quas dederunt Leuestan filio Orgari et Ailwino et Roberto filiis Leuestani et ceteris de eorum cognatione ut ipsa acra tota Beati Pauli et canonicorum esset soluta et quieta imperpetuum.

Sed quoniam de eadem acra orta est calumpnia ab eisdem et eciam a quadam sorore supradicti Leuestani, dixerunt enim se nihil habuisse amplius quam xv marcas de xxvj supradictis, redemerunt eam ab eisdem vij libris et ix solidis et xj denariis, ita videlicet quod super eandem acram recepit inde Leuestanus viij marcas, et Robertus filius Leuestani j marcam, et Ailwinus frater eius j marcam et dimidiam, et Gislebertus Prutfot vicecomes ij solidos et Azo aldermannus ij solidos, et soror Leuestani ij solidos, que cum aliis parentibus clamavit Sancto Paulo et canonicis totam acram solutam et quietam, Hugo filius Ulgari iij solidos, Vitalis clericus vicecomitis iiij denarios, bedellus illius Warde iiij denarios, pueri scolarum qui testes huius empcionis interfuerunt iij denarios ad cerasa habuerunt. . .

¹ This should be *collectantes*, as printed in Pegg's edition, *i.e.* as they do at collections.

² The date is fixed by the first witnesses being "Radulphus Decanus, Ricardus de Belmeis". Ralph of Langford occurs as dean in 1142, and Richard was Archdeacon of Middlesex in or about 1138. Le Neve's *Fasti*, ii. 307, 325. Magister Henricus, *i.e.* Schoolmaster Henry, also appears as a witness, next after Robertus de Auco.

FURTHER ENDOWMENT OF SCHOOLMASTER.

[St. Paul's Mun. Lib. A. f. xxix.]

NOTA. De decimis magistro scholarum Sancti Pauli concessis, nunc cancellario.
c. 1198.

Ricardus¹ Dei Gracia Londoniensis (*sic*) Episcopus Omnibus sancte matris ecclesie filiis ad quos presentes littere pervenerint Salutem in Domino.

Ea que ad honorem ecclesie Domini et ad ejus dignitatis augmentum recte disponuntur, justum est perpetua firmitate gaudere. Inde est quod nos, cum divina dispositione ad ecclesie Londoniensis regimen vocati essemus, considerantes quod magister scholarum ecclesie Beati Pauli solius fungeretur magisterii nomine, et ex ipso magisterio vel nullum vel modicum sortiretur emolumentum, in mente et proposito habuimus ut cum nobis facultas suppeditaret aliquos magisterio conferremus redditus; ex quibus ipse magister cum dignitatis nomine aliquod perciperet commodum.

Procedente itaque tempore, communicato cum viris prudentibus consilio, assensu Decani et capituli ecclesie Beati Pauli, hec que subscripta sunt ipsi magisterio assignavimus; Decimas, scilicet totius dominici nostri de Fuleham tam de frugibus quam de aliis fructibus; et de feno, et alias minutas decimas omnes, decimas quoque assartorum et novalium que ante tempora nostra ad cultum redacta sunt; scilicet de x et una acris in Bernes, et de viginti acris in Stroda, et de xx acris in campo Dispensatorum, et de xx acris in Wargemere, et de octo acris de sarto Sagun, et de xl quinque acris et dimidia inter assartum Ricardi et vetus fossatum, et de sexaginta octo acris essartorum juxta Wormeholt et Herleston, et decimas de viginti duabus acris apud Sixtele et de duabus acris in Whitemere et de duabus acris que jacent in Hoco et de novem acris essartorum in Wormeholt et de quatuor acris essartorum juxta Wormeholt Hec autem omnia ad cultum ante tempora nostra redacta sunt.

Assignavimus eciam eidem magisterio omnes decimas nostras tam de frugibus quam de aliis fructibus et minutas de dominico nostro de Horseta, et de tota terra illa que fuit Humfridi de Marini. Assignavimus eciam sepedicto magisterio unam acram terre in Horsat ad repositionem decimarum eidem magisterio assignatarum, libere et pacifice de nobis et successoribus nostris tenendam.

Ut autem hec nostra concessio perpetuam optineat firmitatem ne tractu temporis in dubium posset devocari vel in irritum, eam presentis scripti testimonio et sigilli nostri appositione roborare curavimus.

Hiis Testibus Radulpho de Diceto, ecclesie Beati Pauli Londoniensis Decano, Magistro Alardo, Archidiacono² Londiniensi, et aliis nominatis in carta.

FIRST MENTION OF ALMONRY BOYS (CHORISTERS) AND BOY-BISHOP.

[St. Paul's Mun. W. D. 9, Registrum Statutorum, part vii, chapter 6. Printed by W. Sparrow Simpson, 1873.]

CONSTITUTIONES ET STATUTA ET DECLARATIONES CONSUETUDINUM ANTIQUARUM ET APPROBATARUM EDITE TEMPORE MAGISTRI RADULPHI DE DISCETO, DECANI SANCTI PAULI.

1181-1199.

De Canonicis qui in Ecclesia Sancti Pauli London residere proponunt sic est ordinatum, quod veniat per quindenam ante festum Sancti Michaelis, vel Natalis Domini, vel Pasche, vel Nativitatis Sancti Johannis Baptiste, ad Capitulum, et in presencia Decani et Fratrum, pro-

¹ Fitz Neal, 1189-1209.

² After 1197 to 1215.

testetur se velle residere, et residenciam iuchoare in vigilia Sancti Michaelis proxime sequentis, vel aliorum festorum predictorum, et eam secundum consuetudinem ecclesie predictae continuare; duos clericos tunc secum habens, qui aliud beneficium vel officium in Ecclesia non habeant, et sint in sacris, vel alter in sacris, alter ad sacros aptus, et cum ipso chorum frequentent horis diurnis omnibus et nocturnis. Et cotidie pascat ad tres refecciones duos parvos Canonicos, et duos Capellanos, et quattuor Vicarios, et duos pueros elemosinarios,¹ et servientes ecclesie virgas in ea portantes, et Pulsatores campanarum qui qualibet nocte ad domum suam venient ut eum evigilent, et de matutinis muniant vel constare faciant ad portam diu pulsando ne horam illam perdat; pro qua pulsacione singulis noctibus liberatam panis et servisie et coquine habeant. Et secum ad Ecclesiam media nocte panem et cervisiam pro junioribus chorum frequentantibus deferi faciat. Et quolibet quarterio semel vel bis post matutinas junioribus gentaculum unum in domo sua faciat.

DE CENA IN OCTAVIS INNOCENCIUM.

Et secundam cenam in octavis Innocencium tenebit, episcopum cum pueris et eorum comitiva pascendo, et in recessu dona dando, et, si diu expectet adventum illorum nocte illa, ad matutinas non teneatur venire. Et si contingat de facto, quod alibi morari voluerit quam in domibus juxta ecclesiam, sicut predictum est, caret omni beneficio et emolumento Residenciariis et stagiariis debito, ratione Residencie, exceptis pitanciis parvis, que debentur presentibus in festis ecclesie et obitibus.

THE EARLIEST USE OF THE TITLE OF CHANCELLOR AT ST. PAUL'S.

[St. Paul's Mun. Press A. Box 42, No. 1521, Hist. MSS. Com. App. 1521, p. 42.]

1205.

Assignment by William, bishop of London (de S. Marie ecclesia, 1197-1221), of the new places in Chelmsford where he bought the new market.

Witnessed by Mr. John de Cancia, chancellor, and five others.

GRANT BY CHANCELLOR HENRY OF CORNHILL OF HIS HOUSE TO
THE CHANCELLORSHIP FOR HIS OBIT.

CARTA DE DOMIBUS CANCELLARII ET MARCA SOLVENDA AD OBITUM H. CORNULL.

[St. Paul's Mun. Lib. A. f. xxix. 4.]

Between 1231 and 1241.

Omnibus Christi fidelibus Henricus de Cornhull, cancellarius Londiniensis, Salutem in Domino sempiternam.

Debito conditionis humane per exitum mortis corporalis obnoxius, oraciones ecclesie et fidelium apud omnipotentis Dei clemenciam mihi spero profituras. Ea propter aream meam et domos quas in Atrio ecclesie Beati Pauli Londoniensis ad australem ecclesie partem possedeo de consensu karissimi in Christo Patris Rogeri Londoniensis episcopi et capituli ipsius ecclesie relinquo. Ita quod is qui pro tempore in officio Cancellarii et dignitate mihi successerit in ecclesia Beati Pauli domos predictas cum area possideat, et in anniversario die obitus mei singulis annis reddat unam marcam ecclesie prefate, de qua dimidiam marcam fratribus et canonicis qui presentes erunt in commemoratione defunctorum, que pro me fiet, et reliquis clericis chori dimidiam marcam eodem modo presentibus assigno.

Retineo tamen mihi dum vixero et prebendam habuero in ecclesia memorata possessionem

¹ The almonry, or hospital for the poor, was established during Ralph de Diceto's deanery by a grant of Master Henry of Northampton, the chapter annexing to it the doles of bread and pennies which, according to the ancient institution of the church, they gave in alms to the poor. The rectory of St. Pancras was also given as endowment.

et commoditatem hospicii mei, licet ad aliud officium fuero assumptus fortasse, nisi per Dominum Episcopum Londoniensem de alio hospicio eque bono et competenti in eodem atrio mihi provideatur.

In cuius rei testimonium cartam presentem sigillo nostro communivi. Hiis Testibus Galfrido, Decano Sancti Pauli, Magistris W. de Sancte Marie ecclesia et aliis.

THE CHANCELLOR'S DUTIES.

[St. Paul's Mun. W. D. 19, ff. 2a. 4.]

c. 1250.¹ CONSTITUCIO HENRICI NONDUM APPROBATA DE STATU PERSONATUUM ET CANONICORUM.

Item, in tabula scribuntur nominibus dignitatis Dominus presul et Decanus tantum ubique. Cancellarius autem solus, nomine dignitatis in dupplicibus festis tantum in sexta leccione. Hec sunt officia Personarum. . . .

Cancellarius presens de leccionibus, missis, epistolis, ewangeliiis, acolytis, ebdomadariis tabulam instruit, lecciones audit. Lectionem eciam Domini Episcopi solempnibus diebus audit: librum ei defert in quo legitur in principio matutinarum. In ultima eciam leccione serico indutus legenti Episcopo ministrat.

Clericos eciam gradus inferioris de ecclesia ordinandos introducit, et examinatos in scolis Domino presuli representat ordinandos. Et de talium excessibus justiciam exhibet cuilibet conquerenti.

Cui eciam subsunt scolares in civitate morantes, exceptis scholaribus unius scole de Arcubus, et unius scole in Basilica Sancti Martini Magni, qui se privilegiatos in hiis et aliis esse contendunt. Idem eciam cancellarius armarium cum libris ecclesie scolasticis custodit.

STATUTES COLLECTED BY RALPH OF BALDOCK, DEAN, 1294-1304.

CONFIRMED BY HIM AFTER HE WAS CONSECRATED BISHOP,

30TH JANUARY, 1305-6.

THE CHANTER'S OR PRECENTOR'S DUTIES.

[St. Paul's Mun. W. D. 9, f. 101. Printed in W. Sparrow Simpson's *Registrum Statutorum*, 22 seq.]

Pt. I. chap. 54. DE OFFICIO ET POTESTATE CANTORIS.

c. 1300.

Cantoris officium est chorum in cantus elevacione, depressione, et psalmodia regere; Cantores per magistrum Scole cantus in tabula ordinare, negligentes ad cantandum excitare, tumultuantes et inordinate discurrentes per chorum modeste arguere et sedare. In festis maioribus si in choro fuerit instructus ut Cantor antiphonas super *Benedictus* et *Magnificat* et cantus processionales et sequencias inchoare, pueros introducendos in chorum et ad cantum intitulos examinare.

THE SONG SCHOOLMASTER.

Pt. I. chap. 55. DE MAGISTRO SCOLE CANTUS.

Magistrum Scole Cantus in ecclesia Sancti Gregorii, salva Decano et Capitulo ipsius collacione, preficere, et capas chori per substitutum Thesaurarii in chorum delatas per suum succentorem distribuere secundum statum et condicionem personarum. Omnis tamen potestas corrigendi delinquentes in choro ad Decanum et Capitulum pertineat sicut ante ordinacionem cantoris pertinere consuevit. Debet eciam in omni dupplici festo Rectores chori de cantibus incipiendis instruere, et canonico ad altare celebranti *Gloria in excelsis* intonare.

¹ Henry of Cornhill became dean in 1241. The customs of H. of Cornhill are said to be "nondum approbatis", probably because time had not yet run, viz. 60 years.

THE CHANCELLOR'S DUTIES.

Pt. I. chap. 56. DE OFFICIO ET POTESTATE CANCELLARII.

Cancellarii officium est de leccionibus, missis, epistolis, et evangeliis ebdomariis tabulam instruere, lecciones audire, in ultima leccione serico indutus legenti Episcopo ministrare, sextam leccionem per se legere. Clericos eciam gradus inferioris de ecclesia ordinandos introducere, et examinatos in scolis episcopo presentare ordinandos; et de talium excessibus justiciam cuilibet querelanti exhibere; cui eciam subsunt scolares in civitate morantes, exceptis scolaribus scolarum de Arcibus et Sancti Martini magni, qui se privilegiatos in hiis et aliis esse contendunt.

THE GRAMMAR SCHOOLMASTER.

Pt. I. chap. 57. DE MAGISTRO IN ARTIBUS SCOLE GRAMATICE PREFICIENDO.

Idem eciam Cancellarius magistrum de artibus scolis gramaticis preficit, et scholas ipsas congrue reparari facere tenetur; litteras et cartas capituli componit, et que legende sunt in capitulo legit. Sigillum principaliter custodit; pro qualibet carta sigillanda vel innovanda ad utilitatem eorum quibus fiunt, unam libram piperis recipit, et capitulum tres solidos. Decanum, si ad ordines promovendus fuerit, vocat ad titulum *Sancti Pauli*. Libros scolasticos in armariolo principaliter custodit: quos singulis annis coram Decano et aliis ad hoc vocatis exhibere debet, ut nullus deterioretur vel peioretur; et registrum librorum illorum apud Decanum et Cancellarium et fratrem tercium ad hoc deputatum distincte scriptum conservetur.

THE ALMONER'S DUTIES.

Pt. V. chap. 8. DE ELEMOSINARIO.

c. 1310.

Elemosinarius Ecclesie Sancti Pauli sub obediencie et prestiti juramenti debito diligenter observet, ut diebus statutis distribuat elemosinas secundum modum per illos ordinatum qui ad hoc ipsum redditus elemosinarie contulerint. Pauperes eciam mendicantes, quos in cimiterio vel deprope mori contigerit, faciat gratis secundum morem solitum sine more dispendio in majori Cimiterio tumulari. Habeat insuper continuo secum octo pueros ad Ecclesie ministerium ydoneos, quos per seipsum vel alium magistrum inspectantibus ad ministerium Ecclesie et litteratura ac bonis moribus diligenter faciat informari. Pro dictis vero pueris recipiendis vel alendis nichil recipiat ex pacto ab aliquibus exteris preter stipendia constituta, nec per favorem recipiat, nec retineat aliquos pueros nisi ydoneos ad Ecclesie ministerium supradicte. In singulis eciam quarteriis chori stent duo pueri, nec alternent loca, nisi ministerii sui necessitate postulante. Item, dicti pueri chorum ingressi non egrediantur nisi ex causa rationabili ad ministerium suum agendum. Item, dicti pueri cereos absque ceroferariis non ferant, et cereos illuminent et extinguant certis temporibus, sicut congruit secundum mysticam rationem; et si cereos bajulando ipsos desidiose fregerint, eo ipso perdant residuum cereorum in fine septimane. Quociens vero dicti pueri ad scholas vel spaciatum ire debent, pariter eant et redeant sub ducatu alicujus maturi hominis ad hoc per Elemosinarium assignati, ne puerili levitate sparsim evagentur inhoneste. Item, dictus Elemosinarius omnes redditus ad Elemosinarium spectantes plene et distincte scribi faciat; et infra mensem Decano et Capitulo tradat, ut in registro Ecclesie ad perpetuam memoriam describantur.

THE GRAMMAR SCHOOLMASTER'S DUTIES.

Pt. V. chap. 10. DE MAGISTRO SCOLARUM GRAMATICE.

Quod magister scolarum tabulam lecture scribat vel scribi faciat vice Cancellarii, quociens opus fuerit, secundum approbatum morem Ecclesie congruentem. Item, quod more solito

chorum sequatur in habitu congruente et primam legat leccionem in dupplicibus festis, et tunc ascultet et corrigat saltem minores ad tunc lecturos. Item, quod more solito disputationes dialectice¹ et philosophie teneat apud Sanctum Bartholomeum in festo ejusdem, et disputata determinet apud Sanctam Trinitatem.

THE BOY-BISHOP'S CELEBRATION.

Pt. VI. chap. 9. DE OFFICIO PUERORUM IN FESTO SANCTORUM INNOCENCIUM.

1263.

Memorandum, quod Anno Domini Millesimo cc.lxij, tempore G. de fferring, Decani, ordinatum fuit de officio Puerorum die Sanctorum Innocencium, prout sequitur. Provida fuit ab antiquis patribus predecessoribus nostris deliberacione statutum, ut in sollennitate Sanctorum Innocencium, qui pro Innocente Christo sanguinem suum fuderunt, innocens puer Presulatus officio fungeretur ut sic puer pueris preesset, et innocens innocentibus imperaret, illius tipum tenens in Ecclesia, quem sequuntur Innocentes, quocumque ierit. Cum igitur quod ad laudem lactencium fuit adinventum, conversum sit in dedecus, et in derisum decoris Domus Dei, propter insolenciam effrenate multitudinis subsequenter eundem, et affluentis improborum turbe pacem Presulis exturbantis, statuendum duximus ut predicti pueri, tam in eligendo suo Pontifice et personis dignitatum Decani, Archidiaconorum, et aliorum, necnon et stacionariorum, antiquum suum ritum observent, tabulam suam faciant, et legant in Capitulo. Hoc tamen adhibito moderamine, ut nullum decetero de canonicis majoribus vel minoribus ad candelabra, vel turribulum, vel ad aliqua obsequia ejusdem ecclesie, vel ipsius Pontificis deputent in futurum, set suos eligant ministeriales de illis qui sunt in secunda forma vel in tercia. Processionem suam habeant honestam, tam in incessu, quam habitu et cantu, competenti; ita vero se gerant in omnibus in ecclesia, quod clerici et populus illos habeant recommendatos. Cum autem declinaverit Episcopus puer ad cenandum post vespervas Beati Johannis, ad cujus voluerit canonici Residentis domum, hac solum sit contentus familia. Duos secum habeat quos sibi eligit capellanos, duos quos sibi eligit ceroferarios, quinque pueros alios vice clericorum suorum, duos etiam de servientibus ecclesie, qui cum virgis Presulem precedent. Caveant autem sibi ne Capellanos vel Ceroferarios vel clericos suos alios, ut predictum est, de illis eligant qui gerunt personas stacionariorum, sive sint dignitates, sive alie, nisi persone quorum vicem gerunt sint absentes. Illustis autem persona qui vicem tenet Decani, adjunctis sibi quattuor sociis de aliis personis stacionariorum, si fuerint absentes, ut dictum est, ad domum declinet Decani. Ceteri vero qui personas optinent dignitatum, ad domos dominorum suorum declinent, quilibet contentus tribus sociis. Alii vero qui reliquorum stacionariorum personas gerunt, similiter ad domos dominorum suorum descendant, quilibet contentus duobus sociis. Et is ordo et numerus observetur, tam in prima cena quam in mensa diei, quam cena posteriori, nec cum eo cenabit ultima die, vel prandeat cum quo cenavit primo die. Ex premissis manifeste colligitur quod si descenderit Episcopus ad domum Decani, erit ibi cum xv clericis. Si ad domum alicujus optinentis dignitatem cum xiiij clericis. Si ad alterius privati Stacionarii cum xij. Die vero sollennitatis post prandium ad mandatum persone Decani convenient omnes in atrio Ecclesie, ibidem equos ascendant ituri ad populum benedicendum. Tenetur autem Decanus Presuli presentare equum, et quilibet Stacionarius sue persone in equo providere. In transgressores autem hujus constitutionis, &c.

Communi fratrum consensu provisum est et ordinatum quod de cetero non celebrentur O. O. O. contra Natale, nec aliquis Resident vel Stacionarius teneatur aliquos de Ecclesia cum absens fuerit pascere, nisi in dupplicibus festis; nec etiam Ebdomodarius quilibet celebrans missam in dominica ebdomade sue aliquos pascere teneatur, nisi octo personas solummodo, videlicet, ministros altaris, magistrum, Camerarium, et cantores. Acta sunt hec provisa et statuta in

¹ dyalecticie.

compoto cinerum, scilicet die Sabbati in festo Sancti Cedde, presentibus Decano, Archidiaconis London, Essexie, et Middlesexie, Thesaurario, Cancellario, Simone de Stanbrigg, Johanne de Sancta Maria, Reginaldo de Brandone, et Johanne de Luk.

THE ALMONRY BOYS.

Pl. VII. chap. 6. DE PUERIS ELEMOSINARIIS.

Item, quia pueri de Elemosinaria de Elemosina vivere debent, ordinatum est quod in domibus Canonicorum ad terram sedeant, non cum Vicariis ad mensam, ne superbiant et ebriosi fiant, et forte cicius luxuriosi et inepti ad servicium Ecclesie, et aliquando eo cicius hospite non salutato recedunt, et aliquando cum ad Elemosinariam de festo redeunt, dietam ibidem contempnunt et eorum Magistrum diffamant.

THE CHANCELLOR'S THEOLOGICAL SCHOOL.¹

[St. Paul's Mun. Box 24, no. 621.]

1315.

Whereas a house belonging to the Chapter of St. Paul's, at the north-east corner of Sarmonneris Lane, which Sir John Daveys, late Minor Canon, inhabited during his life, has been assigned to Sir Nicholas Housebonde, likewise Minor Canon, for his residence; the said Nicholas has made complaint that it is inconvenient for the purpose, on account of the grievous perils which are to be feared by reason of its distance from the cathedral church, and the crossing of dangerous lanes by night and the attacks of robbers and other ill-disposed persons which he had already suffered, and also on account of the ruinous condition of the building, and the crowd of loose women who live around it. The Chapter therefore assigns to him a piece of ground at the end of the schools, on which to make a house and a "viridarium", the said ground extending from the wall of St. Paul's to the wall on the south side of the church-yard bounding the garden of the Chapter, with various conditions as to the building. A.D. 1315. Witnesses: John de Sandale, Chancellor of England; Richard de Newport, Archdeacon of Middlesex; William de Meleford, Archdeacon of Colchester; Richard de Grene, the Treasurer, Robert de Clothale, the Chancellor, Thomas de Northflete, Henry de Sarracen . . . Walter de Thorp, William de Chateleshunte, and seven others named.

[St. Paul's Mun. Box 24, no. 865.²]

1332.

Assignment by John of Everdon, Dean, of all that place which is on the south side of the said church, from the door which is called "ostium capituli" as far as the schools in which the Chancellor lectures (*legit*), and so crosswise as far as the stone wall opposite, that is to say all that place which is called the garden of the Dean and Chapter, for the building thereon of a chapter-house and cloister.³ Dated 18th Kalends of July, 1332.

BEQUESTS SHOWING THAT ALMONRY BOYS WERE CHORISTERS.

[Calendar of Hustings Wills, ed. Dr. Sharpe, i. 281, ii. 21.]

1315. Friday before 24 Aug.

Neuport (Sir Richard de) late Bp. of London. To Sir W^m de Tholeshunte & Sir Jⁿ de Haddelee his chaplains in S^t Pauls and their successors in his chauntries a messuage opposite S^t Paul's brewhouse.

¹ Abstract in Hist. MSS. Comm. Rep. IX. Appx. 52.

² Abstract in Hist. MSS. Comm. Rep. IX. Appx. 53.

³ Cloister and chapter-house built 1332.

To the Almoner of S^t Paul's a messuage in the parish of S^t Gregory, he rendering annually 20^s to chapel of B. V. M. in S^t Paul's; the residue to maintenance for 2 years of one or two boys when they shall change their voice, provided they have no other exhibition. Roll 47 (60).

London, Friday before S^t Bartholomew, Apostle.

1348. 14 Nov. Pulteney (Jⁿ de) K^t

(*cf.* Hist. MSS. Commn. Rep. IX. Appx. p. 47 a.)

Master of collegiate church of Corpus Christi near S^t Laurence, Candelwyk-street, to pay to Almoner of S. Paul's church 20^s for summer vestments for choristers, so that they sing every day after compline an antiphon with music and orisons for the dead in the chapel to be erected by the Testator's executors for the good of his soul. Friday after S. Martin, 1348.

1358. 16 July.

Ravonstone W^m de. Rep. Chaplain & Almoner. (*cf.* Hist. MSS. Commn. Rep. IX. Appx. 47 b.)

A tenement called le Stonelious in Paternoster Row given for support of one extra chorister or two.

STATUTES FOR THE ALMONER.

[Brit. Mus. Harl. MS. 1080. Registrum Elimosinarii.]

Before 1263.

STATUTA ELIMOSINARII.

Elimosinarius ecclesie Sancti Pauli sub obediencie et prestiti juramenti debito diligenter observat ut diebus statutis distribuatur elemosinas secundum modum per illos ordinatum qui ad hoc ipsum redditus elemosinarie contulerunt.

Pauperes et mendicantes quos in cimiterio vel de prope mori contigerit faciat gratis, juxta morem solitum, sine dispendio in majori cimiterio tumulari.

Habeat insuper cotidie¹ secum octo pueros ad ecclesie ministerium ydoneos quos per seipsum vel alium magistrum in spectantibus ad ministerium ecclesie et litteratura ac bonis moribus diligenter faciat informari. Pro dictis vero pueris recipiendis vel alendis nichil recipiat ex pacto ab aliquibus exteris preter stipendia constituta, nec per favorem recipiat vel retineat pueros aliquos nisi ydoneos ad ecclesie ministerium supradictum.

In singulis quarteriis chori stent duo pueri nec alternent loca nisi ministerii sui necessitate postulante.

Item dicti pueri laute ingressi non egrediantur nisi ex causa rationabili ad ministerium suum peragendum.

Item dicti pueri cereos absque cere ferariis non ferant, et cereos illuminent et extinguant certis temporibus sicut congruit secundum mysticam rationem et si cereos bajulando ipsos desidiouse fregerint, eo ipso perdant residuum cereorum in fine septimane.

Quociens vero dicti pueri ad scholas vel spaciandum ire debent, pariter eant et redeant sub ducatu alicujus maturi hominis ad hoc per Elimosinarium assignati, ne puerili levitate sparsim evagentur inhoneste.

BEQUESTS BY ALMONER FOR ALMONRY BOYS, MONEY, BOOKS, AND ENDOWMENT FOR SHOES.

1328-9. 20 Jan.

[*Ibid.* f. 32.]

Testamentum Domini Willelmi de Tolleshuntes Elemosinarii ecclesie Sancti Pauli, quo legavit duas marcas annui redditus Decano et Capitulo dicte ecclesie ad calciamenta puerorum Elemosinarie.

In Dei nomine Amen. Ego Willelmus de Tolleshunte, Elemosinarius ecclesie Sancti Pauli

¹ continuo.

London, in firmo proposito visitandi limina Apostolorum Petri et Pauli, Rome, Deo disponente, in remissionem peccatorum meorum, condo et ordino testamentum meum xx die Januarii A.D. secundum cursum Ecclesie Anglicane 1328 sub hac forma . . .

Item lego pueris ecclesie quos ego educavi senioribus in Elimosinaria existentibus cuilibet xij^d et junioribus cuilibet vj^d . . .

Item lego Hugocionem meum meliorem et Priscianum majorem et minorem in uno volumine ligatum, et Ysodorum ethemologiarum, et omnes libros meos gramaticales preterquam illos quos habet Radulphus clericus meus, et omnes quaternos sermonum de Festo Sanctorum Innocencium, quos tempore meo solebant Episcopi Puerorum pronunciare, ad remanendum in Elimosinaria predicta imperpetuum, ad usum fructum puerorum in eadem degencium, ita quod nullatenus accommodentur extra, aut alienentur.

Lego eciam libros artis dialectice, de quibus Johannes de Stanground habet veteres logicas et novas, cum libris naturalium et alios libellos artis ejusdem, quod hujusmodi libri accommodentur pueris aptis ad scolatizandum cum ab elemosinaria recesserint; ita tamen sub ydonea caucione restituendi, ne alienentur.

Libros eciam fisicales quos habeo plures de medicinis, et eciam libros juris civilis, viz. Instituta, Codicem, Digestum Vetus, et Authentica, ac alia scripta legalia, lego ad usum puerorum modo et forma superscriptis.

Item duas marcas annui redditus cum omnibus pertinenciis suis in London exeuntes de temento quondam Walteri de Geddyng, quod postmodum habitavit Dominus Edmundus de Passele miles, prope veterem piscariam, mihi legatas per Dominum Ricardum de la Mare de Bernolby, capellanum, ad ordinandum et disponendum de eis pro animabus ejusdem Ricardi et Domini Johannis de Lyndeseya avunculi sui, prout salubrius et commodius videro expedire imperpetuum, sicut plenius patet in testamento ipsius Ricardi, probato, proclamato et irrotulato in Hustingo London de placitis terre die Lune in crastino Sancte Trinitatis anno regni Regis Edwardi filii Edwardii xvij^o, do et lego Decano et Capitulo ecclesie Sancti Pauli London et eorum successoribus imperpetuum, ad augmentum piorum operum Elemosinarie ipsius ecclesie sicuti subinseritur¹;

ut videlicet, Elemosinarius dicte ecclesie, qui pro tempore fuerit, imperpetuum dictum redditum duarum marcarum colligat et percipiat, et pueris Elemosinarie choro ecclesie deservientibus, quibus ante hec tempora nihil certum pro calciamentis extiterit² ordinatum de dicto redditu de calciamentis necessariis provideat imperpetuum quatinus dicta pecunia se extendat.

Pro quibus calciamentis predicti pueri singulis diebus mane cum surrexerint, et sero priusquam eant cubitum psalmum De Profundis Clamavi cum Pater Noster, et Ave Maria; et orationibus Inclina Domine, Miserere, et Fidelium, pro animabus dictorum Ricardi et Johannis, et eciam pro anima mea et animabus omnium fidelium defunctorum, dicent imperpetuum.

In testimonium premissorum sigillum meum presentibus apposui et ad majorem huius rei evidenciam sigillum Capituli Sancti Pauli ad negocia apponi procurari. Datis et actis London die et anno supradictis.

Istud Testamentum factum fuit per Dominum Willelmum de Tolleshunte Elemosinarium ecclesie Sancti Pauli et coram nobis Decano et Capitulo exhibitum et approbatum, ac sigillo nostro communi ad negocia consignatum, in testimonium approbacionis ejusdem ad rogatum dicti Testatoris in Capitulo nostro xij Kalendas Februarii A.D. mcccxxvij.

Testibus Willelmo de Shoredich, aurifabro, Johanne de Horkesle, ligatore librorum, Johanne Blome, Gilberto ymaginario, Johanne de Waltham, pictore, Edwardo de Loing, et Thoma Aunsel et aliis.

Istud Testamentum probatum fuit, proclamatum et irrotulatum in Hustingo London de communibus placitis tento die Junii proximo ante festum S. Margarete anno regis Edwardi III post Conquestum quarto. Waltham.³

¹ subscribetur, Hackett.

² ex tunc, Hackett.

³ Omitted by Hackett.

ST. PAUL'S SCHOOL BEFORE COLET

Hoc Testamentum Domini Willelmi de Tolleshunte nuper ecclesie nostre elemosinarii antea in vita ejusdem Willelmi coram nobis Decano et Capitulo S. Pauli London probatum, iterato iij Kalendas Marcii post mortem ipsius Willelmi A.D. mccc^{mo}. xxix^o probatum fuit coram nobis.

GIFTS TO ALMONRY BOYS (CHORISTERS) AT OBITS.

[St. Paul's Mun. W. D. 9.]

Idibus Julii. Obiit Thomas Ayswy:

Majoribus Canonicis	xl ^s
Minoribus Canonicis	ii ^{mcca}
Vicariis Capellanis et Secundariis	xxx ^s
Servientibus	xl ^d
Pauperibus per manus Elemosinarii	8 ^{li}
Ad vesturam puerorum	xx ^s
Summa £14 quos solvet Cancellarius de ecclesia de Borham una cum	xl ^s
Ad obitum Henrici de Sandwyco Episcopi. Termini solucionis sunt	
hii: In crastino quo cantatur Letare Jerusalem	xii ^{mcca}
Et in crastino S. Johannis Baptiste	xii ^{mcca}

ix Kalendas Augusti. Obiit Radulphus Baldok:

Majoribus Canonicis presentibus in officio	l ^s
Pueris elemosinarie	xii ^d

xvi Kalendas Septembris. Obiit Johannes de Wengham:

Majoribus Canonicis	j ^{mcca}
Minoribus Canonicis	ii ^s
Vicariis	vj ^d
Capellanis	ij ^s
Servientibus	x ^d
Pueris elemosinarie	viiij ^d

xv Kalendas Septembris. Obiit Rogerus de la Leye:

Pueris elemosinarie	viiij ^d
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Nonis Octobris. Obiit Henricus de Borham:

Majoribus Canonicis	v ^{li}
Minoribus Canonicis	xviiij ^s
Pueris elemosinarie	v ^s

Prior de Leye solvet de terris in Borham.

vii Idus Octobris. Obiit Willelmus de Cateteshante:

Octo pueris elemosinarie	viiij ^d
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vi Idus Octobris. Pueris elemosinarie

De tenemento W. de Bussle in parochia Omnium Sanctorum in Bredestrete.

v Idus Decembris. Obiit Ricardus de Graueshende Episcopus.

Pueris elemosinarie	ix ^d
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PAYMENTS FOR ALMONRY BOYS (CHORISTERS) FROM CHANTRIES.

[St. Paul's Mun. W. D. Chantry Certificate by Dean and Chapter.]

R. *Baldock's* Chantry.Item to pore students being sum tyme choresters of the saide Cathedral Church towards ther exhibition yerely xxx^sJ. *Poultney's* Chantry. 22^o Edward III.Item to chorysters of Paules yerely for their somer lyveres xx^sR. *Mundey*.To the choristers of Pawle's yerely liij^s. iiij^dThos. *Ever*. H. iv.To the poore choristers of Paules towards their exhibicion in the University yerly payde xxx^sT. *Morel*, Dean. H. vi.To the Amener of the Cathedral Church of Paules in London towards the fyndyng of the chyldren ther yerely paiede xiiij^s. iiij^d.

PETITION TO KING ON BEHALF OF THE THREE SCHOOLS OF LONDON FOR PROHIBITION TO LORD MAYOR'S COURT SUPPORTING RIVAL SCHOOLS.

[*Rotuli Parliamentorum*, iii. 324. 17 Richard II.]

1393-4.

Au Roy nostre tres redote Seigneur supplient voz humbles Chapelleins et devoutz orateurs W. Ercevesque de Cantirbirs, l'Evesque de Loundres, le Dean de vostre franke Chapelle de Seint Martin le Grant, et le Chancellor de l'Eglise de Seint Paul en Loundres, que combien que par la Loy esperituel, et Custume en celle partie prescript, l'ordenance, disposicion, et examinacion des Mestres de certaines Escoles de la facultee de Gramer deinz votre Citee de Loundres, et les Suburbes d'icelle, as ditz Ercevesque, Evesque, Dean, et Chancellor, ove l'avys du dit Evesque de Loundres, de temps dount memoire ne court, et a nulles autres pertinerent, pertinent, ou pertenir devoient ; nientmoins ore tard ascuns estranges lour feynantz Mestres de Gramer, nient appris' suffisaument en mesme la facultee, sanz assent, scieu, ou volonte des avant ditz Ercevesque, Evesque, Dean, et Chancellor, volentrivement usurpantz lour Jurisdiccion et poair, encountre loy et custume tiegnent Escoles generales de Gramer en vostre dite Citee, en deceite et illusion des enfantz, en grant prejudice de voz liges, et de la jurisdiccion de Seint Eglise : Et par la ou les troys Mestres des Escoles de Seint Paul, et des Arches, et de Seint Martin avant dit, pur grant ease et profit de voz ditz subgiez ont pursuiz lour droit encountre les estraungers Meistres suis ditz en Court Christiene, selonc la forme de la loy de Seint Eglise, et en grant partie de lour plee procedez, les ditz estranges Mestres ont pursuiz devant Vous en Court seculer encountre les ditz troys Meistres duement receuz et auctorizez, aulin que les ditz Meistres estraunges puissent tenir lour Escoles generales sanz assent des Ercevesque, Evesque, Dean, et Chancellor suis ditz, et que les ditz troys Meistres suis ditz deussent entierrement surseier de lour dite processe en la Court Christiene suis dite.

Plese a votre roial Magestee grantier voz graciousees Lettres du Prive Seal, directez as Mair et Aldermans de vostre dite Citee, eux comandantz, que par consideracion si bien de l'interesse

que Vous avez en ce cas a cause de vostre franke Chapelle suis dite, come le prejudice des Ercevesque, Evesque, et autres suis ditz, qu'ils ne soy mellent, n'attemtent rien en celle partie, par ont la Jurisdiccion de Seint Esglise, ou le proces entre les ditz parties eue en la Court Christiene soit destourbe, encountre la forme de la Loy et Custume ent usee, pur Dieu, et en oeuvre de charite.

PETITION OF COMMONS THAT NO SON OF A LABOURER IN HUSBANDRY
MAY PUT HIS SON APPRENTICE UNLESS HE HAS 20s. A YEAR AT
LEAST IN LAND, BUT MAY PUT HIM TO SCHOOL.

[Statutes of the Realm, 7 Henry IV. c. 17.]

1405-6.

Mes qil soit mys de servir a autiel labour, soit il deinz Cite ou Burgh ou dehors, come ses ditz Piere ou miere usent, ou autres labours come leur estates requiergent. . . .

Purveux toutesfoitz que chascun homme ou femme de quele estate ou condicion qil soit, soit fraunc de mettre son fitz ou file d'apprendre lettereure a quelconque escole que leur plect deinz le Roialme.

WRIT OF PRIVY SEAL OF KING HENRY VI. FOR LETTERS PATENT FOR
TWO NEW GRAMMAR SCHOOLS IN LONDON.

[P.R.O. Privy Seals, 24 Hen. VI. 8101 *seq.* Printed in *Excerpta Historica* (London, 1831), 5.]

1446. 3 May.

Henri by the grace of God King of Engelande and of Fraunce and Lorde of Irlande To oure Chancellor of Engelande greting.

For asmoche as the right reverent fader in God Therchebisshopp of Canterbury and the reverent fader in God the bisshopp of London considering the greet abusions that have ben of long tyme withinne oure Citee of London that many and divers persones not sufficiently instruct in gramer presumynge to holde commune gramer scoles in greet deceipte aswel unto their scolers as unto the frendes that fynde them to scole have of their greet wysdome sette and ordeigned .v. scoles of gramer and no moo withinne oure said Citee; Oon withinne the chirche yerde of Saint Poule; an other withinne the collegiate Church of Saint Martin; the thridde in Bowe chirche; the iiijth in the chirche of Saint Dunstan in the Est; the .v. in oure hospital of Saint Anthony withinne oure said Citee. the whiche thei have openly declared suffisantz, as by their lettres patentes their upon maad it appereth more at large We in consideracion of the premisses have therunto graunted oure Royal wille and assent Wherfore we wol and charge you that here upon ye doo make oure lettres patentes under oure greet seel in due fourme declaring in the same oure said wille and assent, yevyng furthermore in commaundement by the same oure lettres unto alle oure subgittes of oure said Citee that thei nor noon of thaim trouble nor empeche the maistres of the said Scoles in any wyse in this partie. but rather helpe and assiste thaim in asmoche as in thaim is Yeven under oure prive seel at Guildeforde the iij^{de} day of May The yere of oure regne. xxiiij. Langeport.

Memorandum quod sexto die Maij anno vicesimo quarto superscriptum istud breve liberatum fuit Cancellario Anglie exequendum.

LETTERS PATENT OF HENRY VI. AS TO GRAMMAR SCHOOLS IN LONDON.

[Pat. 24 Henry VI. pt. ii. m. 28.]

PRO MAGISTRIS GRAMATICALIBUS IN CIVITATE LONDON.

1446. 6 May.

Rex omnibus &c. Salutem.

Sciatis quod cum venerabiles in Christo patres Archiepiscopus Cantuariensis et Episcopus Londiniensis ex eorum provida et innata prudencia magnas abusiones infra civitatem nostram London temporibus diuturnis frequentatas et usitatas Considerantes, quod quamplures et diverse persone in arte gramaticali minus sufficienter instructi scholas communes gramaticales pueros nonnullos et eorum amicos ipsos ad scholas exhibentes nequiter defraudando infra eandem civitatem tenere presumpserunt, quinque duntaxat scholas gramaticales, et non plures infra civitatem predictam statuerunt et ordinarunt;

unam videlicet, infra cimiterium ecclesie Sancti Pauli;

aliam infra ecclesiam nostram collegiatam Sancti Martini magni;

terciam in ecclesia Beate Marie de Arcubus;

quartam in ecclesia Sancti Dunstani in Oriente;

et quintam in hospitali nostro Sancti Anthonii civitatis nostre predicte;

quas per eorum litteras patentes sufficientes declararunt, prout in eisdem plenius apparet;

Nos de gracia nostra speciali premissa considerantes ad omnia predicta firmiter fienda et observanda nostrum regium assensum adhibuimus et favorem. Et hoc omnibus quorum interest innotescimus per presentes.

Damus autem omnibus et singulis ligeis nostris civitatis nostre predicte quod nec ipsi nec eorum aliquis perturbent nec impetant, perturbet nec impetat Magistros scholarum predictarum quovis modo in hac parte, set prius eis assistant et subveniant quantum in se existit.

In cuius &c. Teste Rege apud Westmonasterium vj die Maii.

Per breve de privato sigillo et de data predicta auctoritate Parliamenti.

PETITION FOR ESTABLISHING FOUR NEW GRAMMAR SCHOOLS IN LONDON, HENRY VI.

[Rotuli Parliamentorum, v. 137.]

1447.

To the full worthy and discrete Communes in this present Parlement assembled; Please it unto the full wyse and discrete Communes in this present Parliament assembled to considre, the grete nombre of gramer Scholes, that somtyme were in divers parties of this Realme, beside tho that were in London, and howe fewe ben in thise dayes, and the grete hurt that is caused of this, not oonly in the Spirituell partie of the Chirche, where often tymes it apperith to openly in som persones, with grete shame, but also in Temporell partie, to whom also it is full expedient to have compotent congruite for many causes, as to youre wisdoms apperith. And for asmuche as to the Citee of London is the commune concours of this lond, wherin is grete multitude of younge peple, not oonly borne and brought forth in the same Citee, but also of many other parties of this lond, som for lake of Scole maistres in thier oune Contree, for to be enfourmed of gramer there, and som for the grete almesse of Lordes, Merchauntz and other, the which is in London more plenteously doon, than in many other places of this Reaume, to such pouere Creatures as never shuld have be brought to so greet vertu and connyng as thei have, ne hadde hit ben bi the meane of the almes abovesaid; Wherefore it were

expedient, that in London were a sufficeant nombre of Scoles, and good enfourmers in gramer, and not for the singuler availl of ii or iii persones, greuously to hurte the multitude of yonge peple of all this Lond; For where there is grete nombre of Lerneris, and fewe Techers, and all the Lerneris be compelled to goo to the same fewe Techers, and to noon other, the Maisters wexen riche in money, and the Lerneris pouere in connyng, as experience openly shewith, aynst all vertue and ordre of well puplik. And thise premises . . . and sturen of grete devotion and pitee, Maistre William Lychefeld, parson of the parich Chirche of all Halowen the more in London; Maister Gilbert, parson of Seint Andrewe in Holbourne subarbs of the saide Citee; Maister John Cote, parson of Seint Petre in Cornhull of London; and John Neell, Maister of the Hous or Hospitall of Seint Thomas of Acres, and parson of Colchirche in London, to compleyne unto you; and for remedie besechyn you to pray the Kyng our Soveraigne Lord, that he bi thadvys and assent of the Lordes Spirituell and Temporell, in this present Parliament assembled, and bi auctorite of the same Parliament, will provide, ordeyne and graunte, to the saide Maistre William, and his successours, that thei, in the seid parssh of all Halowen; to the said Maistre Gilbert, and his successours, that thei in the saied parssh of Seint Andrewe; to the said Maistre John, and his successours, that thei in the said parssh of Seint Petre; and to the said John Maistre, and his successours, that thei within the forsaid parssh of oure Lady of Colchirche, in the whiche the said Hous of Seint Thomas is sette, may ordeyne, create, establish and sette, a persone sufficiently lerned in gramer, to hold and exercise a Scole in the same science of gramer, and it there to teche to all that will lerne; And that everiche of the saied Maistre William, Maistre Gilbert, Maistre John, and John Neel Maistre, suche Scole maister so bi him sette, and everiche of theire successours, suche Scole maister bi him, or bi any of his predecessours so establisshed and sette specially as is above rehercid, may in his owne parich or place remove, and an other in his place substitute and sette, as often as any of the said persones, or their successours, semith that cause resonable so requireth; and so to doo, iche of the said persones and their successours, as often as it happenyth any of the said Scoles to be voyde of a Scole Maistre, in any maner wise; to the honour of God, and encreasyng of vertu.

Responsio.

The Kyng wille, that it be do as it is desired; so that it be doone by thadvyse of the Ordinarie, otherelles of the Archebisshope of Canterbury for the tyme beyng.

THE THEOLOGICAL SCHOOL OF THE CHANCELLOR OF ST. PAUL'S.

[*Gregory's Chronicle* (Camd. Soc. N. S. xvii. 1876, ed. by James Gairdner), 230.]

1465.

Ande be fore thys tyme the fore sayde Docter Ive¹ kepte the scolys at Poulys þat ys undyr the chapter house, and there he radde many fulle nobyll lessonys to preve that Cryste was lorde of alle and noo begger, and he dyde hyt afyr the forme of scholys, for he hadde hys abyte and hys pelyon, and a vyrger with a sylvyr rodde waytynge uppon hym. And the same fryer of Menors that answeyd the Whyte Fryer answeyd hym onys, and many tymys he² dyspute and radde in that³ scholys; he kepte hyt more then ij yere.

¹ Ive was, in 1463, Master of Whittington College. In 1458 he had been assigned by William Say, Dean of St. Paul's, to preach before King Henry VI. He "had been at Winchester in Wychem his College", as informant or head master from 1444 to 1454.

² Dr. Ive.

³ MR. GAIRDNER'S NOTE: "The Cathedral School of St. Paul, not the present St. Paul's School, which was founded at a later date by Dean Colet and dedicated to the Child Jesus." [This is, of course, a twofold error. The school mentioned was the Theological School on the south side of the church, not the Cathedral School properly speaking, *i.e.* the Grammar School, which was at the east end of the churchyard, a few yards north of which Colet built the new school, taking over the old school as part of its endowment.]

ST. PAUL'S BOY BISHOP'S SERMON.

[Printed by Wynkyn de Worde, c. 1496, and thence in Camden Society's (N. S. xiv) *Miscellany*, vii. p. 1, ed. E. F. Rimbault, 1875.]

c. 1490.

IN DIE INNOCENCIUM SERMO PRO EPISCOPO PUERORUM.

Laudate pueri Dominum.

PSALMO CENTESIMO XIJ^o et pro hujus collacionis fundamento.

Prayse ye children almyghty God, as the¹ Phylosopre sayth in dyuerse places. . . .

As an arowe of hymselfe can not be mouyd ne dyrectyd unto the prycke without the redy conueyance of hym that shoteth, through whom dyrectly he attayneth his ende and is shotte to the prycke. . . . It is not in mannes power to ouercome vyce of hymselfe. . . . Moche more those that bene chyl dren for tendernesse of aeye and lacke of knowledge can not direct theyr dedes conueynently to that ende wythout specyall helpe of god. In token herof children newly sette to scole, lackynge the use of reason and the habyte of cognycion, haue a recourse to Goddys direccyon, Fyrste lernynge this (Cristis Crosse be my spede), And so begynnyth the a. b. c. In wytnesse of defawte of this perfeccion in knowlege, Pictagoras to the dyreccyon of Chyldren founde fyrste thys letter in the a. b. c. Y the whyche as Ysider sayth Ethimologis is formyd and made after the symylytude of mannys lyfe. For this letter. *y*. is made of two lynes. One is a right lyne, the other is half ryght and half crokyd. And soo verily the Infant aeye of a chylde is right nother disposyd to vertue nother to vyce. . . .

But the seconde aeye is callyd Adolescencia, and hath two lynes, a ryghte and a crokyd, signyfyenge the dysposycion that he hath thenne to vyce and to vertue. In the whiche aeye is the brekyng of euery chylde to goodnes or to lewdenes. . . . Thre thynges sayth Salomon ben harde to me to knowe. . . . But the fourth moste harde is to understonde The waye of a man in his growynge aeye. Tho children thenne the whiche lacke discrecyon, use of reason, and perfyghte cognycion, and yet attayne to thende that is preparid for mannys blysse, As thyse blessid Innocentes whoos solemptyte we halowe this daye (Qui non loquendo sed moriendo confessi sunt). . . .

In the begynnynge thenne of this symple exhortacion, that I a chylde, wantynge the habite of cunnynge . . . make . . . prayers. In the whiche prayers I recomende . . . my broder byshopp of London your Dyocesan Also for my worshipful broder Deane of this cathedral chyrche, wyth all residensaries and prebendaries of the same And moost intierly I pray you to haue myself in your specyall devocion, so that I may contynew in this degree that I now stonde, and neuer her after to be vexed wyth Jerom's visyon . . . whanne . . . he answerde and sayd (virgam vigilantem ego video) A waken rodde I se, sayde Jeremy. Truely thys waken rodde ofte tymes hath troubled me in my chyldehode, that lumbi mei impleti sunt illucionibus, et non est sanitas in carne mea . . . And therfor, though I be now in hys dygnyte, yet whan I se other here my mayster that was thenne, Operuit confusio faciem meam. . . . As Nero the emperour wolde to his mayster Seneca, the same wysshe I wolde to my mayster I loue soo well. And for ther true dylygence that al my maysters the whyche taughte me ony cunnynge in my youthe gaue to me, I wolde they were promyttid to be perpetuall felowes and collegeners of that famouse college of the kynges foundacion in Suthwerk that men calle the kynges Benche, gretter worshypp I can not wysshe than for to sytte in the kynges owne benche. And for by cause Charyte is perfyghte yf it be extendyd as well to thende of the lyfe as it is the lyfe self, I wolde they sholde ende ther lyfe in that holy waye the whyche often tymes I radde whan I was Querester, in the Marteloge of Poulis; Where many holy bodyes deyed, callyd in latyn (Via Tiburtina), in englysshe asmoche to saye as the highwaye to Tiburne. . . .

Prayse, ye children, your god in your infant aeye; prayse ye hym in your growynge aeye;

¹ Here and throughout "th" is printed for the thorn used in the original.

And prayse ye hym perseuerauntly (usque in senectum et senium) in your mannys aege And in thye iij praysyng of iij aeges shall stonde the processe of this symple collacion. . . .

. . . somtyme ryghtwysnesse was the cheyf ruler ; Now Falshede is quarter mayster. . . . somtyme trouth stode upryghte, now he is fallen. Gode men haue inserchyd the strete where he felle. Some sayd he fell in Lombarde strete. Some sayde in Buklars bury. And whan it was utterly knowe he was fallen in euery strete. . . .

Whan that infant aege is ended, the fader prouydeth for hys chylde For a mayster, the whyche gyueth instruccion in small doctrines, as in his Donat, Partes of reason, and suche other, the whyche mayster comynly is callid pedagogis in Latin. Thys maister geuyth commandementes to the chylde in his growyng aege. And he breke them he is sharpely correctyd. There is no fawte that he doth but he is punyshyd ; somtyme he wryngeth hym by the eere ; sometyme he geueth hym a strype on the honde wyth the ferell ; sometime betith him sharply wyth the rodde. And so wyth commaundementes and sharpe correccion he geuyth hym full Instruccion in the lawer scyence. . . . As mankynde grewe in aege almyghty god prouided to man an enformer that was callyd Moyses, the whiche shold teche man his pryncipalles and smalle and rude doctrynes. And so the olde lawe taughte to man his Donat and Partes of reason. . . . And if we differre and woll not correcte ourselfe here in the scole of mercy, full greuously and moost sharply shall we abyde the swerde of correccion. . . .

The fourme and the maner how we sholde worship . . . In Chyldehode, Yongthe, and Manhode, Is shewyd to us by a praty conceyte of oure comyn Kalender in euery boke of servyse. . . . By *Kalendas* is understonde childhode . . . dedicate to devocion ; thenne set the faders the children to scole, Thenne be they taught to serue god, to say grace, to help the preest to synge ; For to be meke, gentyll, and lowely. Thenne say they oure lady matens, and ben ryght deuoute. . . . By the seconde daye that is callyd *Nonas* I understonde the seconde aege, that is callyd Juuentus . . . and herto . . . may the youthe of man applyed, that is in specyall from xiiij. yeres unto xvij. ; In the whiche he is ful of undeucyon. . . .

THE THEOLOGICAL SCHOOL OF THE CHANCELLOR.

[REGISTER OF BISHOP FITZJAMES, f. 127 b ; printed in W. Sparrow Simpson's *Registrum Statutorum*, 413.]

Ordinacio Domini pro lectura in theologia.

c. 15 . .

In Dei nomine Amen. Cum ad honorem Dei fideique Cristiane et virtutis incrementum et continuationem, ministrorumque Ecclesiae Cathedralis Sancti Pauli London omniumque clericorum et presbiterorum in hac inclita urbe commorantium et aliorum illic indies confluentium disciplinam et salutaris doctrine fomentum, divinique pabuli verbi Dei nutrimentum, per devotos, probosque, ac recolende memorie viros, in eadem Ecclesia pia consideratione fuerit ab antiquo salubriter statutum, provisum, et ordinatum, Quod Cancellarius Ecclesiae Cathedralis predictae quiscunque pro tempore existens, lecturam in sacra theologia per se, vel per alium continue legeret et observaret, atque pro onere ipsius lecture supportande et continuande Ecclesia parochialis de Yeling, Londoniensis diocesis et jurisdictionis, ac Episcopi pro tempore existentis collacionis, cum suis juribus et pertinenciis universis dignitati cancellariatus in eadem Ecclesia fuerit et sit per bone memorie N., olim ejusdem Ecclesiae verum patronum ac ordinarium, appropriata, unita, annexa, et incorporata, Lecturaque praedicta per nonnullos dicte Ecclesiae Cancellarios eorum temporibus successivis annis transactis fuerit laudabiliter et effectualiter observata et continuata. Tandem tamen, quorundam Cancellariorum ejusdem Ecclesiae incuria, culpa, desidia, et negligencia, incepit esse adeo rara, intercisae, et discontinuata, quae et si paucis diebus unius anni observata et celebrata fuerit, per multos tamen sequentes annos neglecta, deserta, et pretermissa extitit, atque sic neglecta, deserta, et

pretermissa existit in presenti, prout facti evidencia et notorietas rei hoc inpresenciarum certo cercius manifestat et declarat :

Unde, cum nos, Ricardus Fitzjames, permissione divina London Episcopus, Ecclesiam nostram Cathedralē predictam et singulos ministros ejusdem juxta pastoralis officii debitum, gracia reformandi ea que erant ibidem reformatione digna, lapsaque in eadem erigendi et reparandi nuper visitaverimus, prout ipsam et ipsos de diebus in dies sic adhuc visitamus, inter cetera, in hujusmodi nostra ordinaria visitatione generali, detecta et comperta per nonnullos nostre Ecclesie praeedictae ministros, piis animis et devotis mentibus, nostro fuit detectum officio, et exinde gravis quodammodo proposita querela, Quod lectura predicta tam utilis, quam necessaria ac devotis animis commodifera, per multos retroactos annos fuit penitus neglecta, quodque in dissuetudinem abiit, Sane, pendente visitatione nostra hujusmodi, habitis super premissis, in nonnullis sessionibus nostris, cum dilectis filiis Decano et Capitulo ejusdem Ecclesie, et magistro Willelmo Lichfield, Cancellario ejusdem moderno, tractatu, communicatione, et matura deliberatione, comperimus quod propter verbum *continue* in ordinatione et fundacione ipsius lecture insertum, Cancellarius Ecclesie predictae, cui onus sustentacionis et exhibitionis ipsius lecture incumbere et incumbit, illud onus sufferre et sustinere omisit, nimis grave et summe durum reputans et existimans tantum onus continue subire et supportare debere : Cum itaque plerumque in futurorum eventibus sic humani fallitur incertitudo judicii, ut non nunquam quod conjectura profuturum credidit, subsequens temporis transcursus intollerabile reddit et nocuum, ideo, non debet reprehensibile judicari, si, secundum varietatem temporum, statuta quandoque varientur humana. Et quemadmodum ad officium cujuslibet pertinere dinoscitur presidentis pro subditorum commodis salubriter ordinata facere inviolabiliter observari, sic, non minori cogenti rationis imperio, negligenter omissa et collapsa in revolutionem et restauracionem oportet deducere, et novi appositione remedii erigere, et renovare prudencius sic omissa. Unde nos, Ricardus, Episcopus antedictus, sentientes melius, utilius, ac honorabilius esse benignam et favorabilem interpretacionem illius verbi *continue* facere, ut ex hoc exercitium et officium memorate lecture saltem ad aliqualem usum et observanciam restauretur, et ad utilem statum reducatur quam quod hujusmodi lectura propter importabile et durum onus continue observanciae ejusdem omnino praetermittatur et negligatur, habitis itaque super hoc, videlicet, quomodo illud verbum *continue* sit intelligendum et que ac qualis lectura censeatur vel intelligatur, esse continua, et aliis hujusmodi lecture restauracionem, observanciam, et continuacionem concernentibus, cum Decano et Capitulo predictis tractata et matura deliberacione, Quedam statuta, ordinationes, provisiones, interpretaciones, declaraciones, et decreta, cum prefatorum dilectorum filiorum Decani et Capituli, ac Magistri Willelmi Lichfield, Cancellarii moderni, cuique interesse specialiter vertitur in hac parte, voluntate, consensu, et assensu expressis, facienda sive condenda decrevimus, per que sepepredicta tam salubris quam fructuosa lectura sic, ut premittitur (quod dolentes referimus quasi extincta), reviviscat et reincipiatur (Domino annuente) de cetero inperpetuum mansura. Quapropter, de voluntate, consensu, et assensu expressis predictis, statuimus, ordinamus, et decernimus quod Cancellarius Ecclesie nostre Cathedralis predictae modernus, et quilibet ejus successor futurus, singulis annis inperpetuum lecturam predictam, sub modo, forma, excepcionibus, et provisionibus infrascriptis loco consueto observare et continuare teneatur. In primis quidem, in vim voluntatis, consensus, et assensus predictorum, volumus, statuimus, ordinamus, et decernimus, quod Cancellarius hujus modi, per se, vel per alium ejus deputatum, ad hoc sufficientem et idoneum, leget lecturam in theologia in Ecclesia nostra Cathedrali predicta per tres dies simul et successive, vel per intervallum, seu saltem continuatos singulis septimanis, si tot dies fuerint in septimana legibiles, et a diebus ferialis sive festivis vacaverint. Sin autem tot dies festive, sive solennes feriale[s], in una septimana intervenerint et interciderint, quod non sint in una ebdomada tres dies legibiles a diebus festivis, sive feriali[bus], ut premittitur, vacantes, tunc volumus, statuimus, ordinamus, et decernimus, ut premittitur, quod per duos dies in illa septimana lecturam suam observabit. . .

COLET'S EPITOME OF ST. PAUL'S STATUTES.

[BOOK II.]

Chap. 15. DE CANCELLARIO.

Cancellarius Ecclesiae et Capituli Scriba est : nam ad eum pertinet componere et scribere Epistolas Capituli, et legere coram Capitulo eas quae ad Capitulum transmittuntur. Is praecipue Sigillum custodit, et quae sigillanda sunt sigillat. Is praest omni lectioni in choro, et videt, ut quicquid legatur, id rite, pulchre, et distincte legatur : docet in hoc genere ignorantes, laudat beneficientes, male legentes corripit, et castigat. Episcopo aliquando legenti ultimam lectionem ipse Cancellarius librum sustinens ministrat. In majoribus Festis sexta lectio ab ipso Cancellario legi debeat. Is etiam praest literaturae, non solum Ecclesiae, sed etiam totius civitatis. Omnes Magistri Grammaticae ei subjiuntur. Is in Schola Pauli Magistrum idoneum, quem ante Decano et Capitulo praesentaverit, praeficit ; et aedes illius Scholae sumptibus suis reficit. Is etiam libros Ecclesiae omnes scholasticos custodit, et Magister eruditionis et doctrinae est ; et auditoribus legere oportet sacras Literas, ad Dei cognitionem, et ad vitae et morum institutionem. Item, de numero librorum, et integritate eorum, quotiens vocatus fuerit, reddet rationem.

DE MAGISTRO GRAMMATICIS.

Magister Scholae Grammaticae vir probus et honestus debet esse, atque multae et laudatae literaturae : is pueros doceat Grammaticam, maxime eos qui sint Ecclesiae ; eisdem exemplum bonae vitae ostendat : caveat magnopere ne scandalizet teneros animos aliqua foeditate, vel facti vel sermonis ; quinimo simul cum casta literatura imbuat eos sanctis moribus : sitque eis, non solum grammaticae, sed etiam virtutis, Magister. Is loco Cancellarii scribit in tabula, atque notat ordine, quid quisque legat in Ecclesia. Is etiam Magister habitum gerat in Choro, et in majoribus Festis primam lectionem legat.

COLET'S RE-FOUNDATION AND NEW ENDOWMENT OF ST. PAUL'S SCHOOL, 1508-12.

[From Colet's "Book of Evidences" among the Mercers' Company's Muniments.]

PREFACIUNCULA JOHANNIS COLETT IN HUIUS LIBRI CONTENTA.

c. 1512.

[f. I.] I, John Colett, Deane of Paulis, sonne and heyre unto Sir Henry Colett knight and Alderman of the cite of London and twyse Mayre of the same, havyng lefte unto me of my fader bothe certeyn goodes inoenable and also lands called patrimony, desyryng the said lands and goodes to be dispendid and to be disposed in suche use as in my mynde shal be moost honorable to God and profitable to man ; and seeyng as in my iugement nothing better in this world nor more commodiouse to Crist's church, that is to sey, all Cristendome ; and for the reformation of the same nowe sorowfully decayed bothe in goode maners and cleane litterature than good institucion and bringyng upp of childern in faith and charitie in wysdome and goode lyvyng in goode letters and laudable conversacion.

In the yere of oure lorde god A thousand fyve hundred and eight beganne to edifye in the Estende of the Churchyerd of Paulis a scole house of stone for childern theryn to be tawght free to the nowmbre of an hundred fyfty and three.

And also ordeyned twoo techers perpetuall oon callid the Maister, and that other callid the Ussher or surmaister and conveyent stipend for their labours. And also bielled a mansion adjoyning to the saide scole at the northside for the maisters to dwell yn.

And in the yere of our lord a thousand fyve hundreth and twelff full accomplished and synysshed the same scole and mansion in every poynt.

And made overlookers and surveyors supportours and maynteyners of the same scole and mansyon the honest substanciall and faithfull crafte of the Mercers of London of whiche companye my said fader was oon.

And gave also to the perfourmyng of the charges of the said scole by the way of sufficient mortefying after the order of the realme of Englund lxxxiiijth vijth viijth clere above all charges, oonly reparacions except

and also my place in the parisshe of Stebbunhith. And delivered unto the saide Mercers all the evidences of the saide londs and all the writtings of the mortefying of the same, they alway to lye and remayne in the chamber of the scole.

And for bicause whan it shall be necessary to see eny writtyng concernyng the saide londs they shall not be compelled to bryng owte theire evidence I caused this booke to be written, in whiche is conteyned the very ensamples and copies of all the writtyngs and muniments to the said matter apparteignyng as hereafter apperith, unto which booke they may resorte from tyme to tyme to have in it as sufficient instruction as thoughe they looked in the very origynalls.

MINUTES OF THE MERCERS' COMPANY.

MAISTER DOCTOR COLET, DEAN OF POULES, FOR THE SCOLE.

Courte of Assistens holden the ixth daye of Aprell the yere above written [1510].

1510. 9th April.

[f. 193.] When it was shewed by Maister Thomas Baldry mercer that Maister Doctour Colet, Dean of Poules, had desired hym to shewe unto the Compeny that he is disposed for the foundation of his scole to mortife certen londes whiche he wold that this Compeny shulde have if they wolde be bounde to maynteyne the said scole accordyng to the foundacion aforsaid, and after long communication had amonge theym it was agreed that Maister Thomas Saymer oon of the Wardens and the said Mr. Thomas Baldry shall have communication with the said Maister Deane in the said mater and as thei shall se theryn to bryng reporte agayn to the Compeny of Assistens.

Relacion from Mr. Deane of Poules for the Scole, xij Aprill.

1510. 12th April.

Maister Thomas Saymer, oon of the Wardens, shewed that he and Thomas Baldry had been with Maister Dean of Poules accordyng as it was agreed at the last courte of Assistens and had felde parte of his mynde for the foundation of the Scole in Poules church yarde, whereof he proposith to make oure Compeny Conservators and Rulers, and desireth not to charge us forther then suche londes as he shall gyve us for the maytenaunce of the said scole may always be sufficient to discharge us; and the same Maister Deane will go unto the Kyng's grace and make suyte for the mortifying of the lands of the said Foundation, and at his returnyng again he will desire to have more communycation with the Compeny. Wherfor it is agreed that the said Maister Saymer and Thomas Baldry shall go unto hym and knowe his further pleasure in this matter and to bringe reporte unto the Compeny, and if they shall seme good to take with theym such other of our Compeny as they shall thynke best.

REPORTE OF THE COMMUNICACIONS WITH MR. DEAN OF POULES.

1510. 16th April.

When was shewed by Maister Thomas Saymer Warden and Thomas Baldry that they had ben with Maister Deane of Poules and had communycacion with hym for the foundation of the Gramer Scole whiche he entendith to founde and make in Poules Church yarde. And the same Maister Deane was verrey glad that he myght have with us communycacion thereof in whom he proposith to put all the rule and governance of the said scole.

And for that he wolde the Compeny should better understonde what that he entendith to put in oure handes for the mayntenance of the said scole, and further of his good mynde which he bayreth unto this felyshepp he delyvered a bill to the said Maister Wardens and Thomas Baldry conteynyng theryn the names of certeyn londes and the yearly value thereof clerely whiche he wolde that we shulde have for maynteynyng of the said scole and other certen articles comprised in the said bill, the copie whereof hereafter foloweth:

[f. 194.] Bukynghamshire

Weston Turvile by yere clerely	xxj ^{li} xj ^d	} xxxv ^{li} xj ^s ix ^d
Aston Clynton	.	.	.	.	.	vj ^{li} x ^s iijj ^d
Shirryngton	vij ^{li} xvij ^s vj ^d	

Cambridgeshire

Barton by yere clerely	vj ^{li} xiiij ^s iijj ^d
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Hertfordshire

Barkway by yere clerely viij^{li} wiche is in
fee farme etc.

Summa omnium predictorum lⁱⁱ v^s j^d

Item his mynde is that ye shalbe charged to pay withyn the cite of London yerely lⁱⁱ in suche maner as he shall devise.

Item when the Compeny aforesaid had redd the forsaid bill and understoud his good mynde unto us they were well content and gave hym thankyns, and were also well content to go further with hym in the said mater, and after that the articles whiche he shall drawe for the good Rule and sure contynuaunce of the said scole shal be by us sene and well understoud, thanne we to shewe hym oure myndes thereyn and than to desire of hym to have suche Rule and order as we shall deme requisite and necessarie.

1510. 17th April.

MAISTER DEAN OF POULES.

The yonge men departed, the lyverey abode, to whom it was shewed of the good mynde and will that Maister Dean of Poulis bayrith unto the Compeny in whom he is fully purposed to put his trust and confidens to have the rule and governaunce of his scole as more largely it apperith by dyvers courts of assistens before holden. Wherewith the Compeny were well content and desired Maister Wardens that they wolde take some payns and diligens for thacomplysshement of the said good intent, &c.

COLET'S PETITION TO THE KING FOR LICENCE IN MORTMAIN TO ENDOW THE SCHOOL.

1510.

SUPPLICATIO AD REGIAM MAJESTATEM.

In the moste humble wyse shewith and besechith youre mooste gracioux highnesse youre contynuall oratour John Colet Deane of the cathedrall church of Seynt Paule within youre cite of London. That where youre said oratour to the pleasur of God and for and in augmentacion and encrease as well of connyng as of vertuose lyvyng within this your realme hathe nowe of late edifyed within the lymitory of the saide cathedrall church a Scole house wherein he purposith that children as well borne and to be borne withyn youre said cite as elsewhere to the same repaying shall not onely in contynuaunce be substancially taught and servyd in laten tung; but also instructe and informed in vertuose condicions, whiche by goddis grace shall largely extende and habunde to the commen well of the people of this your Realme. And to the grete coumfort and commoditie of your grace and to youre heires: to have yong children of youre Realme bothe in conyng and vertue graciously brought upp in avoydyng manyfolde vices whiche these dayes for lake of suche instruccion in youth been gretly rootid and contynued in yong people to the grete displeasure of God, and for the perpetuall contynuaunce of the charges of the same for ever to be borne paid and susteyned according to such ordre and direction as youre said oratour by the speciall favour and licence of your Highnesse purposith to make and ordeyne. He intendith to geve and mortyfe landis and tenementis of the clere yerely valew of fifty and three poundis in the countie of Bukyngham to some body corporat at his denomynacion. In consideracion whereof it may please your Highnesse of your most habundant grace and goodnesse by your gracioux lettres patents under your grete seale in due forme to be made to graunt and licence your said orator to geve and graunt manors lands and tenements in the said countie of the clere yerely valew of fyfty and three poundes above all charges to som body corporat and licence to the same body corporat the same landes and tenements to receyve and take to thentent beforesaid ony statute of landes and teneiments to mortmayn not to be putt notwithstanding. And that withoute fyn fee or other charges thierfore to be paide or borne to youre grace. And youre said oratour shall duely pray to God for the prosperitie of youre moste noble and royall estate long to endure.

The result of this supplication was the grant of letters patent dated 6th June in the 2nd year of Henry VIII., i. e. 1510, not, as too often wrongly given, 1511. As they have been several times printed, the letters patent need not be given here in full. They recited that nos (the king)

considerantes pium propositum Magistri Johannis Colet S.T.D. Decani ecclesie cathedralis S. Pauli Londoniis in edificacione jam cujusdam scole in cimiterio dicte ecclesie pro pueris in dicta Scola crudiendis in bonis moribus et litteratura pro meliori sustentacione unius Magistri et unius Hostiarii (usher) sive duorum Hostiariorum ejusdem et aliarum rerum necessariarum ibidem fiendarum granted licence custodibus et communitati mistere mercerie civitatis London et successoribus suis quod ipsi et successores sui dominia maneria terras (&c.) ad annum valorem £53 ultra omnia onera et reprisas . . . acquirere et recipere possint.

The patent was, in accordance with the petition, expressly granted without fine or fee; a not unusual concession when the foundation was educational.

THE DEAN AND CHAPTER'S GRANT TO THE GRAMMAR SCHOOLMASTER, W. LYLY,
OF A STALL IN CHOIR.

1510. 27th July.

Concessio Decani et Capituli Magistro scole grammaticalis de ingressu chori ecclesie cathedralis predictae et stallo congruenti ab antiquo solito et quod ab omni exactione parochiali ipse et sui liberi et immunes sint, ac gaudeat et gaudeant privilegio quo domus Elemosinariorum puerorum dicte ecclesie quo ad sacramenta ecclesiastica gaudet, etc.

Universis Christi fidelibus ad quos presentes littere pervenerint seu quos infrascripta tangunt aut tangere poterint in futurum, Johannes Colet S.T.P. Decanus ecclesie cathedralis Sancti Pauli London et ejusdem loci Capitulum Salutem in auctore salutis.

Quia tam de antiqua laudabili et legitime prescripta consuetudine quam etiam statutis et laudabilibus consuetudinibus dicte ecclesie Cathedralis Magister scole grammaticalis prefate ecclesie Cathedralis Sancti Pauli London quicunque pro tempore existens ex corpore nostro, pro tempore quo magister ibidem steterit, fuerit atque chori memorate ecclesie tempore divini officii ingredi atque in stallo congruenti et prout solitum fuerit sedere quando ad premissum accedere voluerit sive laicus sive sacerdos existat, dummodo honeste et superpellicio commodo et congruenti hoc faciat, solebat et consuevit;

Atque tam in et pro ejus persona quam pro domo sua sive hospicio suo eadem libertate qua magister domus puerorum Elemysinariorum ejusdem ecclesie gaudet et gaudere solebat.

Hinc est quod nos discretum virum Magistrum Willelmum Lyly primum magistrum nove scole Sancti Pauli opere lapideo pro eruditione puerorum tum in bonis moribus tum etiam litteratura in cimiterio ecclesie Sancti Pauli in parte orientali ejusdem gracie edificate et fundate et ejus successores in hujusmodi officio succedentes in corpus nostrum et dicte ecclesie assumimus;

Et ut ipse magister Willelmus Lyly et successores sui hujusmodi eorum officium circa premissa, quod valde saluberrimum et oportunum estimamus, quietius exercere valeat, et circa erudicionem puerorum in premissis diligentius vigilet et attendat, eidem Magistro Willelmo Lyly magistro hujusmodi et successoribus suis damus et concedimus atque presenti nostro scripto confirmamus quod tam hujusmodi magister scole quam ejus domus sive hospiciu et successores sui in eodem officio ab omni exactione parochiali libera sit atque sint eorum quilibet, atque consimili gaudent, et gaudeant eorum singuli, privilegio quo domus Elemosinariorum puerorum memorate ecclesie gaudet.

Et quod in illa domo nullum alium recognoscant aut recognoscat eorum aliquis curatum quam cardinales ecclesie cathedralis predicta a quibus omnia ecclesiastica sacramenta recipere debet et debebunt eorum singuli.

Salvis tamen nobis et successoribus nostris tribus libris sterlingorum pro portione hujusmodi domus sive hospicii per manus mercerorum London secundum formam indenturarum inter nos et eosdem mercesos in hac parte singulis annis infuturum solvendis.

In quorum premissorum fidem sigillum nostrum commune presentibus apposuimus, Datis 27 die mensis Julii A.D. 1510.

Courte of Assistens.

FOR THE SCHOLE OF POULES.

1510. 13th August.

When it was shewed by Maister Simon Rice that Maister Dean of Poules desired of the Compeny that they wolde do so muche labour as to call som lerned counsaill unto theym and to devise some maner wrytyngs wherby that the Compeny myght surely holde of the Dean and Chapitour of Poules the grounde wheruppon the scole house and the dwelling place for the Maister is or shalbe edified, and suche wrytyngs so devised, the said Maister Deane will cause to be sealed with the chapitour scale of Poules, The Compeny agreed that Maister Wardens with John Kyene and Beniamyn Dygby shall call lerned counsaill unto theym and to se the said wrytyngs made under the best maner that may be devised for the suretie of the felishipp and the pleasour of the said Maister Deane.

General Courte of Merchantt Adventurers.

FOR THE SCOLE HOUS AT POULES.

1510. 17th August.

When after all were departed save oure owen Compeny it was shewed that whereas Mr. Deane of Poules and the Chapitour had sealed a dede of estate indented betwene theym of Poules and this compeny with the Chapitour scale, by the whiche we shulde receyve possession of the grounde whereuppon the scole hous is buylded in Poules churchyard and the scolemaister house shalbe buylded, to remaine to this place forever, when the counterpane shuld have been sealed with our comen scale and graunted; but afterwards by lerned counceyll another conveyance was devised to bryng the said londs to the compeny.

ST. PAUL'S SCHOOL BEFORE COLET

Assemble of the lyvery the xxiiijth daye of September.

FOR THE SCOLE AT POULES.

1510. 24th September.

Whereas Maister Doctour Colet, Deane of Poules, was present and shewed unto the cumpeny that he had opteyned certeyn wrytyngs of the kyngs good grace wherby he hath licens to mortyse in the cuntrey to this Compenny liij^{li} londe by yere for the foundation of the scole hous nowe lately bulded in Poules churcheyerde of the godes of the said Maister Dean, whiche wrytyngs he brought with hym and shewed unto the Cumpeny and thanked theym of theyr good myndes that thei bare unto hym touchyng the said foundation, that it wolde please them to graunte unto hym to have the charge and besynes thereof. Sheweth more that by the grace of god he woll indevoyr hym so that he trusteth to put the Compenny in possession of the said lands on this syde Cristenmas next or sone after, and desired of the same compeny that they wolde assigne iiij persones that might resorte unto hym at suche tyme as he shall sende for theym to ask avise comen and conclude uppon the synnysshing of the premysses Than the cumpeny electe and chose theis persones whose names be after written to be dayly at his commaundement when he shulde send for them—Mr. Symon Ryce, Warden; John Keme; Beniamyn Digby; Thomas Saymer. And for defaulte of theis forewritten persones it was agreed that theis folowyng shall gyve hym their attendaunce when and as often as they shall be desired.

John Hosyer.

Ric. Berne.

William Browne.

Thomas Baldry.

John Robyns.

Thomas Hynde.

Moreover the said Maister Dean shewed unto the Compenny that for suche labour and busynes they and their successors shulde have in ordering of the said scole that they shulde have in this cite of London uppon this poynt of xl marke by yere in rents, &c.

Also where as the Wardens and Felishipp at the instance of the said Maister Dean had indented and covenanted with John Byrde carpenter for the buyldyng of a dwellyng house for the Scole maister in Poules Churcheyerde for the whiche the said Wardens and Compenny be bounde by indentures to paye unto the said John Byrde jexiiij^{li} vj^s viij^d sterling. The said Maister Dean delyvered openly afore the Compenny at the assemble unto Maister Simon Ryce cc^{li} st. in nobles and ryalls in parte of payment of alle suche costs and charges as shall be necessarie to be spent and paide for buyldyng of the said dwellyng place.

GRANT BY THE DEAN AND CHAPTER TO THE TRUSTEES OF THE SITE OF THE NEW
GRAMMAR SCHOOL.

1511. 28th March.

Carta Decani et Capituli facta diversis personis de terris ubi nunc erecta est nova Scola cum hospicio pro Magistro eiusdem scole.

Sciatis presentes et futuri Quod Nos Johannes Colett Sancti Theologie Professor et ecclesie Sancti Pauli Decanus ac ejusdem loci capitulum dedimus concessimus et hac presenti carta nostra confirmavimus Johanni Hosyer de civitate London, Mercer, Beniamyn Dicby de eadem civitate, Mercer, et Synoni Rice de eadem civitate, Mercer, totam illam terram nostram jacentem juxta murum cimiterii ecclesie Cathedralis predicte ad partem orientalem inde, scilicet inter tenementum Alicie Crnee vidue ex parte australi et tenementum nunc in tenura Andree Renne ex parte boreali, et continet in longitudine ab austro usque ad boream 120 pedes assise et in latitudine ab oriente usque ad occidentem 33 pedes assise, super quam nunc de novo edificatur domus sive scola grammaticalis de opere lapideo cum hospicio pro Magistro ejusdem.

Habendum et tenendum totam predictam terram cum omnibus edificiis super eandem constructis prefatis Johanni Hosyer, Beniamyn Dicby et Simoni Rice et heredibus suis imperpetuum ad opus et usum dictorum [J. H., B. D., and S. R.] et heredum suorum imperpetuum;

et nos vero prefati Decanus et Capitulum et successores nostri totam predictam terram prefatis [J. H., B. D., and S. R.]; heredibus et assignatis suis contra omnes gentes warantzabimus et imperpetuum defendemus per presentes.

Sciatis insuper nos prefatum Decanum et Capitulum assignasse fecisse locoque nostro posuisse et constituisse dilectos nobis in Christo Dominum Willelmum Clerke clericum et Mauricium Haukebroke nostros veros et legitimos in hac parte attornatos ad deliberandum seisinam [etc.].

In cuius rei testimonium huic presenti carte nostre nos prefati Decanus et Capitulum sigillum nostrum apposuimus, Datis in domo nostra capitulari 28 die mensis Martii A.D. 1511: et anno regni Regis Henrici octavi secundo.

GRANT BY THE DEAN AND CHAPTER TO THE SAME TRUSTEES OF THE OLD SCHOOL
OF POULIS.

1511. 28th March.

Carta Decani et Capituli facta diversis personis de antiqua scola cum quatuor shopis subtus eandem constructis.

Sciunt presentes et futuri Quod Nos [Dean and Chapter have granted and confirmed to the same three mercers as in last deed] totam domum gramaticalem sive messuagium nuper vocatam Poulis scole et quatuor shopas subtus eandem domum sive messuagium constructas nunc in tenura Willelmi Barell civis et groceri London et Johanne uxoris ejus pro termino annorum, situatam prope portam vocatam Seynt Austeyns gate videlicet inter teneimentum pertinens Magistris sive Custodibus Pontis London, in quo Johannes Hichcoke civis et mercator scissor London modo habitat ex parte orientali, et quandam magnam portam cujus introitus ducit a regia via ibidem usque ad in cimiterium Ecclesie Cathedralis predicte ex parte occidentali, et continet in longitudine a predicto teneimento usque ad magnam portam predictam 55 pedes assise et in latitudine 20 pedes.

Habendum et tenendum totam predictam domum sive messuagium et predictas quatuor schopas prefatis [the three mercers. Warranty of title and power of attorney to deliver seisin follow, with witness clause as in last deed].

RELEASE BY THE CHANCELLOR OF ST. PAUL'S TO THE SAME TRUSTEES OF HIS RIGHTS
IN THE OLD SCHOOL.

1511. 28th March.

Relaxacio Cancellarii antique scole et de toto jure suo in eadem.

Omnibus Christi fidelibus ad quos presens scriptum pervenerit Magister Willelmus Lichfeld cancellarius ecclesie Cathedralis Sancti Pauli London[iensis] Salutem in Domino.

Sciatis me prefatum Willelmum remisisse relaxasse et per presentes imperpetuum quietum clamasse Johanni Hosyer, Beniamyn Dicby et Simoni Rice in eorum plena et pacifica possessione existentem totum jus titulum statum clameum et interesse et demandam que unquam habui habeo seu quovismodo in futurum habere potero de et in tota domo gramaticali sive messuagio nuper vocato Poulis scole (as in last).

Ita quod nec ego nec heredes nec successores mei nec aliquis alius nomine meo seu heredum vel successorum meorum aliquod jus [&c.] in predicta domo gramaticali sive messuagio predicto et predictis quatuor shopis cum pertinenciis de cetero exigere clamare vel vindicare poterimus, sed ab omni actione juris statu titulo clameo interesse et demanda inde et cujuslibet inde parcelle simus imperpetuum penitus exclusi per presentes.

In cujus rei testimonium huic presenti scripto meo sigillum meum apposui Dato 28 mensis Marcii anno regni Regis Henrici octavi post conquestum Anglie secundo [1511].

PROFESSION BY THE CHANCELLOR THAT THE RELEASE OF THE OLD SCHOOL WAS VOLUNTARY.

1511. 5th April.

Professio voluntarie relaxacionis antique scole magistri Willelmi Lichfelde, Cancellarii.

Universis sancte matris ecclesie filiis ad quos presentes littere pervenerint sive quos infrascripta tangunt aut tangere poterunt in futuro Willelmus Lichfelde, canonicus et residentiarius ecclesie cathedralis Sancti Pauli London atque cancellarius ejusdem ecclesie Salutem in auctore salutis.

Ad universitatis vestre noticiam omni modo meliori aut efficaciori quo possum aut potero in futuro deduco et sic deduci volo per presentes, Quod, quamquam toto tempore quo officium cancellarie hujusmodi in eadem ecclesia Cathedrali exercui et in eodem officio steti multam operam dederim cunctamque meam diligenciam fecerim ut cognoscerem quam auctoritatem aut quod jus ratione officii mei in illis quatuor shoppis super quos videlicet in quodam superiori longa camera desuper edificata antiqua scola grammaticalis Sancti Pauli London tenta et occupata fuerat, aut in eadem antiqua scola michi ratione officii mei pertineat aut pertinere debeat tam in scriviis quam in statutis ejusdem ecclesie cathedralis Sancti Pauli London ea intencione debite exquiesierim.

Quia tamen, prout coram Deo et in consciencia mea testor et fateor nunquam potui quippiam reperire quod significaret Cancellarium in memorata ecclesia pro tempore existentem aut me in officio hujusmodi aliquod jus in illis shoppis et scola antiqua desuper edificata habuisse, neque ex eisdem quatuor shoppis aut scola antiqua aliquid emolumenti vel redditus accepisse aut percepisse, quantum dicere aut intelligere potui, sed totam illam scolam antiquam una cum quatuor shopis hujusmodi ad Decanum et Capitulum ecclesie Cathedralis predicte pertinuisse, et in eorum jure a diu fuisse et esse, Ideo fateor me sponte et libere,

animo quoque deliberato totum jus quod pretendi in eisdem shopis et scola plene et integre relaxasse et hujusmodi juri scienter et expresse renunciassse [etc. ut supra], prout in quibusdam litteris quorum data est vicesimo-octavo die mensis Marci A.D. millesimo quingentesimo undecimo, et anno regni Regis Henrici Octavi post conquestum Anglie secundo, de et super relaxatione hujusmodi factis et manu mea propria subscriptis, sigilloque meo sigillatis, plene liquet.

Et ut ad majorem declaracionem sive noticiam appareat memoratas litteras per me ut prefertur factas subscriptas et sigillatas fuisse et esse atque ad majorem corroboracionem earundem, easdem litteras atque omnia et singula in eis contenta quantum possum aut potero, et ad me attinet, ut supra, approbo et expresse ratifico volens ulterius et expresse consensiciens quod Decanus et Capitulum supradicti et eorum successores futuri de illis shopis et scola cum suis pertinenciis in utilitatem Nove scole in cimiterio prefate ecclesie Cathedralis Sancti Pauli London nuper edificate, atque magistrorum et hostiariorum in eadem, prout sibi melius videbitur expedire, libere absque contradiccione mea aut successorum meorum imperpetuum.

In quorum premissorum fidem et testimonium presentes litteras manu mea propria subscripsi et eisdem sigillum meum apposui. Datis quinto die mensis Aprilis A.D. quingentesimo undecimo.

THE WARDENS TO HAVE THE ORDER OF THE SCOLE, ETC.

Also showed that Maister Deane wolde knowe the myndes of the Compney whether they wolde that he shulde devyse the order of the Scole to be in the Wardens for the tyme beyng or ellis to the Assistens. The Compney answered and said that they wolde that the Wardens for the tyme beyng should have the order thereof and non other.

Item, the said Maister Wardens shewed unto the Compney that Maister Deane of Poules wolde gyfe us possession in suche londes as he hath mortysed in Bukinghamshire for the foundation of the scole in Poules Churcheyarde and that a letter of attorney was made to Benjamin Digby and Symon Ryce for to go and receyve possession for and in the name of all the Compney of the Mercerye, whiche letter of attorney must be sealed with oure commen seale, which the Compney graunted.

1512. 26th April.

At a Court of Assistens holden the xxvjth day of Aprill was elected and chosen theis persones whose names be hereafter written whiche shall wekely attende upon Maister Dean of Poules at suche tyme as he shall appoynte them to com unto the new Scolchous at Poules when as he and they shall devise for to devyse make and ordeigne such ordenaunces rules and constitucions as shall be nedefull for the preservacion thereof.

Mr. John Robyns, Warden.
John Keme.

Symon Ryce.
John Aleyn.

Thomas Saymer.
Benjamyn Dygbie.

THE WARDENS AND ASSISTANTS TO CONCLUDE WITH MR. DEANE OF POULES.

1512. Quarter day holden the xvth day of June.

At the same Court hit was agreed that Maister Wardens and thasistens shall have communycacion with Maister Deane of Poules and to conclude with hym upon all suche articles as shall conserne the conservacion of the newe Scole at Poules, wherewith this felishipp shalbe charged, and what thyngs that the said Master Wardens with the assistens aforesaid shall seeme good to be done thereyn The holl Compney with oon full consent promyse to be content therewith.

AT A COURTE OF ASSISTENS HOLDEN THE XVIIth DAYE OF JUNE THE BOKE OF ORDINAUNCE OF THE SCOLE OF POULES EXHIBET BY MR. DEANE.

1512. 17th June.

Maister Deane of Poules shewed furth and redd a boke contynyng certeyn articles whercyn he hathe expressed the devise of his will to be fulfilled and observed as well by the Scolemaister in the newe scole at Poules that nowe is and hereafter shalbe as by the children that be or shalbe in the same scole and also by the felishipp of the mercery To whom he hath commyteed all the Rule and governaunce of all thyngs that shall apperteyne to the orderyng and charges that shalbe done and borne for the good contynuaunce and conservacion of the said scole And theym endued with certen londes and tenements sufficient to discharge them for all maner of thyngs that shall be nedefull to the scole aforesaid.

And whan the Compney had harde this forsaid boke redd and understoude his mynde theryn in every condicion they gave hym grete thankyngs Promysyng hym that the Compney wilbe glad to endevoure theymself to the accomplyment of his said Will written in the said boke consernyng the said Scole. And the same Dean promysed to sende hither a cople of the said boke &c. to thentent that if any thyng be to be added or demysshed (*sic*) thay may advertyse the said Maister Dean thereof that it may be redressed &c.

COLET'S PETITION TO THE POPE FOR A BULL TO ANNUL THE STATUTES OF ST. PAUL'S
RELATING TO THE CHANCELLOR'S POWER OVER SCHOOLS AND SCHOLARS AND FOR
CONFIRMATION OF COLET'S STATUTES OF THE RE-FOUNDED SCHOOL.

1512.

[Book of Evidences, f. 29.]

SUPPLICATIO AD SANCTISSIMUM DOMINUM NOSTRUM PAPAM.

Beatissime pater, Quum devotus orator sanctitatis vestre Johannes Colet, Sancte Theologie Professor, modernus Decanus ecclesie Cathedralis Sancti Pauli London, attenderet et consideraret nichil conducibilius esse ad cristianam vitam quam ut homines ab ipsa prima puericia ante omnia in elementis fidei catholice et bonis moribus maxime in hiis que sunt de necessitate salutis, que vel parentum incuria vel pedagogorum negligencia pro maxima parte vel ignorant vel non plene tenent, erudiantur, Deinde postea ut in bonis litteris quibus aptiores ad omnia studia fiant probe instituantur et exerceantur;

Et ob eam causam quam idem orator ad honorem Omnipotentis Dei et utilitatem puerorum quorumcunque ut melius in predictis instituantur, magno suo sumptu proprio Scolam quandam in civitate London in platea sive cimiterio ejusdem Cathedralis ecclesie, loco quidem precipuo ac celebri, et quasi inter ipsos oculos civitatis, ubi aliter fuit quedam Scola nullius plane momenti, nunc de novo a fundamento opere lapideo et pulcherrimo non solum edificandam fabricandam et construendam curavit, atque Magistrum preceptores tam sancte vite quam bone litterature constituit sed preterea magnos annuos redditus et perpetuos ad sustentacionem et supportacionem ejusdem scole et magistrorum in eadem donavit et contulit, atque custodes sive gardianos et communitatem artes sive mistere merceriorum in eadem civitate prepositos et electores Magistri et rectores in omnibus ordinavit; et unacum antedictis communitate et custodibus sive gardianis, pro bona continuacione seu conservacione ejusdem scole et magistrorum atque ministrorum sano et deliberato consilio quedam statuta capitula formulas ordinaciones et regulas pias et saluberrimas composuit et ordinavit; aliaque et alias secundum rerum emergenciam pro reformatione et regimine ipsius loci prout et ubi necessarium videatur indies facere atque ordinare intendit, prout huic negotio et huic operi sive intencioni ei melius videbitur expedire;

Cupiens ergo dictus Decanus summopere quod quicquid per eum cum antenominatis communitate custodibus sive gardianis juste et pie circa predictum opus et scolam statumque et regulas ejusdem compositum ordinatumve sit, perpetuam habeat roboris firmitatem;

Et attendens quod in Registro Statutorum et consuetudinum ecclesie London in prima parte in titulo duodecimo sub rubrica "De officio et potestate Cancellarii" scriptum quoddam invenitur in quo disponitur sive inuratur quod "Scolares in dicta civitate morantes subsunt Cancellario dicte ecclesie; et quod ipse Magistrum de artibus Scolis Grammaticis preficiat, et scholas ipsas congrue reparari facere teneatur", ut in dicto libro plenius continetur, ad quem relacio habeatur; ex quo quidem statuto licet satis ineptum sit et in viridi observancia et usu minime habeatur ne posset tamen in futurum aliqua difficultas impedimentum turbacio vel molestia dicte scole fortasse eo pretextu emergere sive provenire, Idcirco ut scola ipsa in quibus deinceps mores docendi et studia celebranda sunt, ac preceptores sive magistri et adolescentes ipsi qui ibidem sunt imbuendi ab omni prorsus molestia et inquietudine perpetuis futuris temporibus sint immunes;

Recurrit igitur, clementissimè pater, orator vester ad pedes sanctitatis vestre, que litterarum studia peculiari quodam presidio semper fovit et benigno favore prosequutus est, eam humiliter supplicando quatinus huic instituto operi ac futuro juventutis conventui et eorum quieti, ex indulgencia apostolica, providendo et consulendo dicto capitulo et statuto et omnibus in eo contentis in quantum disponit quod scolares predicti subsint Cancellario; et quod ipse debeat magistrum ipsis preficere et scholas reparare, ut premittitur, specialiter et expresse derogare; Illud quidem ex toto et in toto, quantum ad scolam predictam preceptores sive magistri ac eciam scolares ibidem futuros et commoratuos attinet, delere, cassare, annullare, et incitare dignetur, Ita quod non liceat Cancellario predicto, neque eciam cuipiam alteri persone cujuscunque gradus, status, dignitatis, condicionis aut preeminencie existentis se de dictis et in dictis scola preceptoribus magistris aut scolaribus et adolescentibus aut eorum aliquo vel eorum ministris, rebus aut bonis ad scolam predictam spectantibus et pertinentibus, et que in futurum ad premissa pertinebunt et spectabunt quovis modo vel facto, seu quovis quesito colore aut cujuscunque auctoritate se ingerere, immiscere vel impedire: necnon omnia et singula statuta capitula, ordinaciones, formulas et instituciones, statum, normam, modum regimen et administracionem dicte scole magistrorum et scolarium et ceterorum ministrorum predictorum concernentes et concernencia facta et in futuro ut premittitur fienda per Decanum predictum una cum dicta communitate custodibus sive

gardianis, ex nunc prout ex tunc, et ex tunc prout ex nunc, auctoritate apostolica ex certa sciencia approbare confirmare et roborare.

Et insuper eadem auctoritate precipere et mandare Reverendo Domino Archiepiscopo Cantuariensi et Capitali Justitiario de Banco Domini nostri Regis Anglie et Majori civitatis London predictae quatinus ipsi vel duo aut unus ipsorum postquam super premissis apostolice littere fuerint expedite, per se vel alium seu alios faciant eadem auctoritate omnia et singula predicta firmiter observari, ac eidem schole communitati custodibus gardianis magistris et scholaribus predictis in premissis et aliis in hac parte necessariis, efficacis defensionis presidio assistentes, non permittant prefatum Decanum scolam communitatem gardianos magistros et scholares contra dictarum ordinationum regularum et formularum factarum et fiendarum tenores quomodo-libet molestari; contradictores quoslibet auctoritate apostolica compescendo concedere et indulgere dignetur de gracia speciali. Non obstante statuto antedicto ac constitutionibus et ordinationibus apostolicis ac predictae ecclesie London juramento confirmatione apostolica vel quavis firmitate alia roboratis necnon aliis etc.¹ cum clausis oportunis et necessariis etc.²

¹ *Sic.*

² *Sic.*

X.—*On a Bronze Age Cemetery and other antiquities at Largs, Ayrshire.* By
ROBERT MUNRO, *Esq., M.D., LL.D., Local Secretary for Scotland.*

Read 9th June, 1910.

A PORTION of the town of Largs is built on a raised beach which here attains a breadth of nearly a mile, though in general it is a mere strip of flat land along the coast. This low ground is fertile, and beyond it rises a picturesque background of grassy hills which shelter the town and bay on the east, a combination of natural advantages which must have rendered the locality an attractive place of abode for man from the earliest times. A plot of cultivated land, near the termination of Nelson Street which intersects the raised beach, was acquired by a townsman as the site of a small villa. The area selected was slightly more elevated than the vacant ground on the east side, but its relative height with respect to its western boundary was uncertain, owing to the land there having been already built upon. It would, however, be no exaggeration to describe it as a low gravelly mound. While digging the foundations of the proposed villa nothing of an archaeological character attracted attention, but later on, in course of some outside operations close to the south wall of the newly erected building, the workmen came upon a small cinerary urn containing calcined bones. The vessel was shaped like a modern flower-pot, without any ornamentation, and stood mouth upwards, having, apparently, been simply deposited in a hole in the gravel. It appears to have been extracted in fragments, and dispersed among private collectors.

Some time afterwards, and not many yards from the same place, an irregularly shaped flag of weathered sandstone was uncovered about a foot below the surface of the cultivated soil. It lay in a horizontal position, and measured from 3 to 4 feet across its flat surface, and 4 inches thick. On its removal, an operation which entailed its being broken into two or three pieces (see fig. 1), there was exposed to view a roughly circular cist constructed of rounded stones about the size of a man's head. The stones, which merely formed a lining to a hole previously dug in the gravel, supported the flagstone, thus serving as an effective cover to the

cist and its contents. The space thus enclosed, measuring 2 to 3 feet in diameter and 18 inches deep, contained no less than seven cinerary urns of various sizes embedded in sand, and all of the same flower-pot shape as the one previously dug up. All the urns stood with their mouths upwards and contained calcined bones. They were made of coarse pottery with thick walls, but so soft and fragile



Fig. 1. The dilapidated cist, showing the broken cover-stone and five of the seven urns found in it. The riddle contains broken pieces of urns and calcined bones.

(Photographed by Mr. W. Coult's Hampton.)

that, on being handled, most of them fell into pieces. Mr. Taylor, the owner of the property, recognizing on this occasion that the relics might be of scientific value, was at a loss how to dispose of them, when, fortunately, Mr. Campbell, Curator of the Glasgow Art Gallery and Museum, having incidentally heard of the find, visited the locality with the object of securing at least part of the spoil for the Museum. The result was that Mr. Taylor generously handed over to him all

that could be gathered together of the urns as a contribution to the Antiquarian collection in his Museum. Mr. Campbell at once took possession of the fragmentary urns and transported them to the Museum, where, after the pieces were slowly dried in a uniform temperature, most of the urns were so far reconstructed as to show their original dimensions (fig. 2). The following measurements were taken by one of Mr. Campbell's assistants and the writer on the 29th June, 1909:



Fig. 2. Some of the urns after being restored.
(Photographed by Mr. W. Coultis Hampton.)

(1) A small flat-bottomed vessel slightly bulging in the middle; height $5\frac{1}{2}$ inches, diameter at mouth $4\frac{3}{4}$ inches, and at base $4\frac{1}{2}$ inches. (The left on upper row, fig. 2).

(2) Another, tapering a little towards the base; height 11 inches, diameter at mouth 9 inches, and at base $5\frac{3}{4}$ inches.

(3) A third measured $8\frac{1}{4}$ inches in height, the same in diameter at mouth, and $6\frac{1}{2}$ inches at base.

(4) A fragment indicated $13\frac{1}{2}$ inches in height, and $6\frac{1}{2}$ inches in diameter at base. Only a portion of the rim remained, and it was perforated with small holes about 2 inches apart.

(5) Another fragment, also perforated at the rim, was $7\frac{3}{4}$ inches in height, $8\frac{1}{2}$ inches in diameter at top, and $7\frac{3}{4}$ inches at base.

(6) One large fragment showed a slightly raised bead running round the body about 2 inches below the rim.

My attention was first directed to these interesting archaeological remains by a paragraph in a local paper, but on visiting the locality little remained to be seen except the dilapidated cist and its broken cover. The photograph reproduced in fig. 1, taken a few days after the demolition of the cist, shows two of the urns lying among some of the stones of which the cist had been constructed,



Fig. 3. An urn with overhanging rim, showing the position in which it lay in the earth.

(Photographed by Mr. W. Coulls Hampton.)

with the broken cover on the left. Other two urns are shown on the margin of the cist, one on each side of the riddle, and one to the right of the broken cover. The conical stone represented in the background was found resting on the cover, and regarded by the workmen as a weight to keep the latter in position.

On a subsequent visit I ascertained that another discovery had been made which considerably enhanced the importance of this unique burial cist. A man, while carting away some of the soil from the back premises, found a perforated stone hammer among the gravel, together with fragments of a cinerary urn. The

carter, on being interviewed, stated that it was only after picking up the stone hammer he observed some fragments of coarse pottery which, in appearance, he could hardly distinguish from the gravel. It was his opinion that the hammer was originally inside the urn before the latter had been broken by his shovel. These relics were then in possession of Mr. Taylor, and, on being told that I was anxious to see them, he very kindly brought them to my house that same evening, and obligingly allowed me to take a drawing of the hammer stone (fig. 4). A fragment of the pottery turned out to be a portion of the rim of a large cinerary urn, having a broad overhanging border ornamented with a zigzag pattern of incised lines, altogether different from the urns hitherto found in the cemetery. Subsequently, a few more urns of a similar type were unearthed in the vicinity of the covered cist, all of which are said to have been deposited in an inverted position in separate holes in the earth, as shown in fig. 3. By this time experience had taught the workmen that these vessels must be handled with the greatest care, but, notwithstanding all efforts in this direction, most of the urns fell to pieces in the act of removal. Two specimens, after being reconstructed under the supervision of Mr. Campbell and his assistants, are now exhibited in the Glasgow Museum. The more perfect of the two is shown in fig. 2, the middle urn on the upper row. Some other fragments, representing at least two more urns of the same type, have fallen into the hands of private collectors.

The cinerary urns now under consideration are differentiated from those found in the covered cist by the following characteristics, viz. an overhanging rim more or less ornamented with patterns of incised lines, a circumscribing hollow neck immediately beneath the rim, similarly ornamented, and a tapering body ending in a narrow or rounded base.

The dimensions of the two urns in the Museum are as follows:

(a) The diameters of no. 1 (see fig. 2) at mouth and base are respectively $14\frac{3}{4}$ and $5\frac{1}{4}$ inches; height $16\frac{1}{2}$ inches. The rim is 3 inches broad, and its surface is ornamented with two herring-bone patterns running parallel to each other. The constricted portion beneath is $2\frac{3}{4}$ inches broad and half an inch deep, and the ornamentation consists of a succession of triangular spaces filled in with incised lines.

(b) The overhanging rim of no. 2 (a fragment) measures 2 inches in breadth, and is ornamented with string-marks arranged in panels in which the marks are alternately horizontal and upright. The diameter at mouth is approximately $7\frac{1}{4}$ inches, and the height 9 inches.

As there was no systematic investigation of the ground, and no archaeological expert present at the exposure of any of the interments, there is a lingering suspicion that the perforated stone hammer might not be the only relic left by the

original owners of the cemetery. Nevertheless, the sepulchral phenomena thus casually brought to light are of the highest importance, especially when correlated with the contents of other prehistoric graves previously discovered in the neighbourhood.

It is to be observed that we are here dealing with a small cemetery of cinerary urns without any surface markings to indicate the position of the respective burials, such as cairns, mounds, dolmens, menhirs, etc. Cemeteries of this description, though apt to remain undiscovered, are not unfrequently encountered in field operations in many districts throughout Scotland. Mr. J. Fullarton, writing in 1858 in his introduction to Pont's *Topographical Account of the District of Cunningham*, thus describes an urn cemetery which will at once be recognized as a complete parallel to that at Largs:

The incineration of the dead would appear to have been of very general use among those aborigines, as is evident from the universal discoveries of cinerary urns which have everywhere been made through the country; nor do they seem always to have been covered by cairns or mounds, but are very frequently found simply sunk into the plain ground from two to three feet under the surface. In such cases, however, they are perhaps for the most part found to occupy slightly elevated and dry places. The woodcut here in the margin was engraved from a specimen of these interesting remains found a few years ago, close by the village of Highthorn, in the parish of West Kilbride. There was a considerable deposit of them at the place, but not many were so sound as to bear being removed. They were very variable in size—from about 15 inches in height down to about 6—the one here engraved measures 13 inches in height by about a foot in width at the brim.¹ They were all either of this pattern or plain in the form of a common flower-pot. No mound or cairn in this instance was found to cover the urns—the ground, to appearance, being quite smooth and in its natural form. . . . They all contained fragments of calcined human bones.

To dilate on the similarity between these two cemeteries is unnecessary, and, as the localities are only a few miles apart, we may accept the evidence here adduced as conclusively proving that this method of disposing of the dead was at least practised in this part of Scotland. The novel and exceptional feature in the Largs cemetery was the presence of seven cinerary urns in one small covered cist, all of which must have been deposited at the same time. It is difficult to suggest an adequate explanation of this fact; except by resorting to some kind of hypothesis, such as the occurrence of a sudden catastrophe which caused the death of a whole family.

¹ The urn figured by Mr. Fullarton belongs to the overhanging rim type and, except for its ornamentation, is precisely similar to the Largs specimen represented in figs. 2 and 3.

According to the chronological researches of the Hon. John Abercromby, the overhanging rim type is the oldest among cinerary urns, having its origin in the south-west of England.

"The oldest examples," he writes, "seem to be found in Cornwall, Dorset, and Wilts. In the two latter counties all gradations of form occur from the beginning to the end of the series, and two varieties of the type, when once developed here, retained their individuality to the last. It has several times been stated that there are no food-vessels in the south-west of England; and though this statement is not quite correct, they are certainly rare. One reason for this circumstance may be, that cremation began earlier in the south-west and south of Britain than further north; in fact, if Mr. W. Borlase is correct, no sepulchral pottery has been found in Cornwall except in connexion with cremated interments. . . . The diffusion of type I (those with overhanging rims) does not seem to have been the result of conquest, for, although the type extends from the English Channel to the Moray Firth, it is only found at present in 25 out of the 40 counties of England, in 5 out of the 12 counties of Wales, and in 18 out of the 33 counties of Scotland. This includes all the seaboard counties of England, except Gloucestershire and several of the Scottish counties that touch the sea. Early examples are also found in the three north-east counties of Ireland. The maritime habits of the inhabitants of the south-west may have had something to do with this uneven distribution."¹

The perforated stone hammer, though an interesting relic and of some chronological value, is not absolutely a new find among grave-goods. Compared with three other specimens, known to have been found in association with prehistoric interments, it is the largest. Made of crystalline trap-rock, called diorite, it has a mottled appearance and a highly polished surface. Its length is $4\frac{3}{8}$ inches, greatest breadth $2\frac{1}{2}$ inches, thickness 2 inches, and diameter of perforation 1 inch. The perforation, evidently intended for a handle, is in the centre, and presents a smooth uniform bore. Its orifice at one end is ornamented by two incised circles and the body tapers a little towards both ends, leaving working surfaces of about one inch in diameter (fig. 4). As instances of hammer stones having been found in analogous circumstances elsewhere the following may be mentioned:

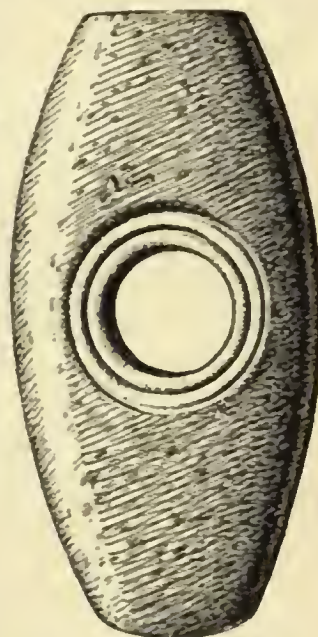


Fig. 4. Perforated stone hammer.

- (1) A perforated stone hammer, described as made of "hornblende gabbro", was

¹ *Proc. S. A. Scot.* xli. 187.

found along with three flint knives in one of the compartments of a chambered cairn in the island of Arran. Its dimensions, taking them all over, are about a third less than those of the Largs specimen, but, as regards material, form, and finish, the two implements are not unlike each other, except that the latter has the perforation nearer one end—which end is slightly smaller than the other.¹

(2) Another pretty little instrument, $2\frac{1}{2}$ inches long, and made of veined quartzite, is rounded at both ends, highly polished, and perforated in the middle. It was found along with a small urn of the food-vessel type in a cairn at Glenhead, near Doune.²

(3) A third specimen, made of grey granite, is 4 inches long, finely polished, rounded at both ends and tapering at one extremity to half the size of the other. It lay among the *débris* of a thick bed of burnt bones and ashes on the floor of one of the chambered cairns of Caithness.³

There is nothing in the circumstances under which all these hammers were found to militate against the supposition that they are genuine relics of the Bronze Age. Indeed, the opinion that they really belonged to that Age is supported by the fact that, among the very few grave-goods recovered from these urn cemeteries, some of them were bronze objects. Dr. Joseph Anderson thus records the result of his experience with respect to five cemeteries of this class in one or two counties in Central Scotland:

In these five cemeteries, including an aggregate of seventy-four separate burials, there was nothing found deposited with the burnt bones, and their enclosing urn, except in one solitary instance. In other words, no implement, weapon, or ornament occurred with seventy-three urns, while two bronze blades occurred with the seventy-fourth.⁴

Other prehistoric burials found in Largs.

We now proceed to discuss briefly the bearing of the two following graves which formerly existed within the boundaries of the town of Largs, with the view of throwing some further light on the chronological sequence of the different burial customs of our early forefathers during the prehistoric period.

The Haylee Stone Cist.

In January, 1906, a stone cist was uncovered on the east side of the Irvine Road, immediately below a commanding site (a little to the north of Haylee House) on which formerly stood a great cairn, and of which a remnant of its megalithic chambers still remains *in situ*. The cover of the newly-discovered

¹ *Proc. S. A. Scot.* xxxvi. 100.

² *Ibid.* xvii. 453.

³ *Ibid.* vii. 499.

⁴ *Ibid.* xiii. 113.

cist, a massive block of conglomerate, and lying some 2 feet under the surface, had to be broken before it could be removed. The interior of the cist measured $4\frac{1}{2}$ feet long, $2\frac{1}{2}$ feet wide, and 2 feet deep. Its walls were constructed of flags of red sandstone set on edge and partly arranged in a double row, in which latter case the intervening crevices were said to have been stuffed with clay. Inside the cist were the remains of a human body, apparently in a sitting posture, and an urn of the beaker type, both of which had been badly damaged by the breaking up of the stone cover. Only a few fragments of the beaker were collected, the largest of which was submitted to the Hon. John Abercromby, who thus describes its principal features:

When whole the beaker must have had a maximum diameter of about 17 cm., a height of about 22.9 cm., and it seems to have belonged to type β , i.e. ovoid cup with re-curved brim. Although such a height is unusual, it occurs with two beakers of the same type from Court Hill, Dalry, Ayrshire, from Largie, Poltalloch, Argyleshire, and on a beaker of type γ , i.e. low-brimmed cup, from Collessie, Fife. . . . So far as I judge, this fragment belonged to a beaker that may be placed about the middle of the Beaker period.¹

Of the skeleton only the skull came into the hands of experts. The following is an extract from a report by the late Professor Cunningham, Edinburgh, to whom it was sent for examination:

The evidence which the Hon. Mr. Abercromby has advanced to show that the beaker urn belongs to the most remote period of the Bronze Age has been the means of stimulating an increased degree of interest in the human remains which have been associated with this form of ceramic.

Dr. Bryce has gathered together the records of twelve crania, all found within the Scottish area, and each singly within a closed short cist, under conditions similar to those under which the Largs specimen was discovered. These crania exhibit a remarkable uniformity in almost all essential details, and one cannot help concluding that they are derived from a very homogeneous and distinct race. The Largs specimen (cephalic index, 84.5) conforms in a striking manner with this type. A very casual examination is sufficient to show, notwithstanding its damaged condition, that in it we have a combination of definite characters seldom, if indeed ever, encountered in association with each other in modern crania.²

The Haylee Cairn.

A writer in *Archaeologia Scotica*, in the course of observations on the Norwegian expedition against Scotland, and especially on the burial of the dead after

¹ *Proc. R. S. Edin.* xxvi. 293.

² *Ibid.* xxvi. 305.

the battle of Largs, thus describes certain sepulchral mounds then extant in the town of Largs:

Just without the churchyard wall there is a considerable cairn, where we may suppose a number of the Norwegian dead are buried. . . . The chronicle makes it pretty clear that this and the other cairns were raised over the Norwegians. Other five tumuli or cairns are marked on the sketch: three behind Brisbane Place, and the houses called the Crescent; one farther up, and one behind the House of Haylee. In these have been found bones, pieces of silver, &c. The last-mentioned cairn may be considered the most remarkable. It has been uncovered by Mr. Wilson, the owner of the land, and it was found to cover a circular building of stones, having an opening on one side, with a kind of passage between two straight walls. In the centre was found the remains of a body, and around it of a number of others to the amount, it is supposed, of thirty. The centre circle was covered by a large round flat stone. The stone building still remains, but the earth that formed the mound upon it has been carried away.¹

The situations of two other cairns are shown, that were very lately removed for the sake of employing the stones in them for making roads. They were on the side of the road leading from Largs towards Haylee, and in the tract where, we have assumed, the chief part of the battle took place.

There are two cairns on the north side of the water of Gogo behind the village upon which Sir Thomas Brisbane has erected pillars for meridian points, to be seen from his observatory at Brisbane House. I have not learned that these cairns were ever opened; and, as the Norwegian narrative does not imply that any part of the battle took place in this quarter, we are not warranted in supposing that they had their origin in Haco's operations.²

What remains of the Haylee monument is situated in the corner of a field near Haylee House, and presents the form of a dolmen or large covered cist. The cover-stone measures $7\frac{1}{2}$ feet long, $5\frac{1}{2}$ feet broad, and 15 inches thick, and rests mainly on the two side stones each about 7 feet long and 3 feet above ground. The enclosed space is about 6 feet long, 4 feet broad, and 3 feet high. Behind this chamber there seems to have been another chamber, now merely outlined by smaller stones, probably the broken bases of those which formed the original chamber. According to the description of this cairn, as quoted above, the present structure is a mere fragment of its former condition. It was locally known as "Margaret's Law", or "Haco's Tomb".

¹ A writer in a local guide says: "In it were found five stone coffins, two containing a number of skulls, besides other bones, and several urns. An immense quantity of bones was found in the cairn not enclosed in the coffins." I need not say that no one now believes that any of these cairns were the burial-places of Norwegians who were killed at the battle of Largs.

² *Archaeologia Scotica*, ii. 382, circa 1822.

Concluding Remarks.

The special features and chronological sequence of these different methods of interment may be thus summarized.

(1) The Haylee megalithic monument containing multiple burials by inhumation may be paralleled with the great chambered cairns of Wiltshire, Somerset, Gloucester, and some other adjacent counties, all of which were constructed by a long-headed (*dolichocephalic*) race. Similar chambered cairns have been found in Scotland, especially in the island of Arran, which have yielded skulls and other bones of this long-headed people. But, on the other hand, within the same geographical areas in Scotland, other chambered cairns have been found which contained burials after cremation and which, of course, supply no data for determining the physical or racial characters of their constructors. It may be surmised from this fact alone that the early people of Scotland had not given up their primitive habit of burying their dead in great stone chambers, when the custom of cremation was introduced and spread rapidly over the British Isles. This custom appears to have been the outcome of strong religious convictions which divided the people into two categories, viz. those who adhered to the old system of burial, either in the earth or under a cairn, and those who adopted the new doctrine that it was necessary to free the soul at once from the corrupt body by the application of fire, before committing the remains to the grave. Although we have no positive evidence of the physical characters of the people who were buried in the Haylee cairn (their osseous remains not being recorded) we have presumptive evidence that they were of the same long-headed race who constructed the megalithic chambers in Arran, both descendants of the earliest inhabitants of Britain.

(2) The next immigrants into Britain were a tall round-headed race (*brachycephalic*) who introduced urns of the beaker and food-vessel types (supposed to contain some kind of semi-liquid food for the journey to the unseen world). These people buried their dead in short cists, and along with the body were generally placed a beaker or a food-vessel and some personal relics. As typical memorials of this kind of burial we have the short stone cist and skeleton on the Haylee ground, already briefly described, which presumably is of later date than the megalithic monument, although the two methods in later times might have been contemporary.

(3) The archaeological phenomena disclosed by the cremation cemetery, the latest of the prehistoric finds found at Largs, indicate a still later phase in the disposal of the dead, a phase in which the structural details of the grave are greatly simplified. The dead body, now regarded as a mere mass of corrupt matter, was first purified by fire, after which the calcined remains were buried in

a hole in the earth, frequently without being enclosed in a cinerary urn. The cairns, mounds, stone circles, and other surface settings which, in earlier times, so conspicuously marked the abodes of the dead, were now by a large section of the communities regarded as unnecessary. Although none of the earlier methods entirely died out, cremation seems to have been the predominating custom in the later Bronze and early Iron Ages, and continued to be so until the introduction of Christianity into Europe. The old funeral rite was soon found to be inconsistent with the new faith.

XI.—*The Album Amicorum.* By MAX ROSENHEIM, Esq., F.S.A.

Read 9th December, 1909.

THE Album Amicorum, or *Stammbuch* as it was called in Germany, where it originated, consisted of a collection of blank leaves of paper or vellum, sometimes kept loose, more often bound up as a book, the leaves being destined to receive the signatures and armorial bearings of the owner's friends and acquaintances; often the signatory added his motto or device, some classical or biblical quotations or sentences, some good advice, and a dedication. Generally speaking, the custom or fashion of the Album did not extend beyond Germany and Switzerland, and only few of them are met with in the Low Countries, Italy, and France. English Albums I have not met with, but at the British Museum (17083) there is a Scottish one to which I shall refer later on.

In 1893 Robert Keil published his and his brother Richard's researches on the subject, the chief material for which they found in the large collection of Albums in the grand ducal library at Weimar.

It is an admirable book, describing chiefly the various phases of the Album Amicorum of students at the German, French, and Italian universities in the sixteenth, seventeenth, and eighteenth centuries, quoting many remarkable mottoes, devices, and sentences, and giving some valuable information about the foundations, grants, and privileges of the German universities and the customs and morals of the students frequenting them.

In attempting to throw light on the origin of the Album Amicorum, these authors suggest that it is the outcome of the tourney book, or of the documentary proofs of noble descent and coat-armour required by the heralds from the knights entering the lists of the tournament, or the outcome of the *Wappenbuch*, the *liber gentilitii* kept by many noble families. They also state that the earliest Albums date as far back as the end of the fifteenth century and that by the time of the Reformation their use had become fairly general.

These are conjectures and statements not warranted by any material they had before them. By the aid of the fairly representative material before us here, and in the MSS. Department of the British Museum, I venture to make some suggestions as to their origin and to prove the earliest date of the Album.

As for the collections of heraldic and documentary proofs for use at tourna-

ments, and the early *Wappenbücher*, it is true that the latter were sometimes called *Stammbuch* or *Stammenbuch*, but there is not the slightest evidence or reason to connect them with the Album Amicorum except on account of the name *Stammbuch* applied to it at the time, and that name I venture to suggest may have been bestowed on the first of them by some students, scions of noble families who remembered the old *Wappenbuch* or *Stammenbuch* at home and wanted to possess and treasure something of the same kind whilst at the universities and travelling through the world. Here I have to lay particular stress on the fact that all the earliest Albums known to us were made up by students at the universities, Wittenberg in particular, and that they do not contain any coats of arms, but simply inscriptions of the owners' friends.

As Knod tells us in *Die deutschen Studenten in Bologna* in reference to the fourteenth and fifteenth centuries, and the Albums in reference to the sixteenth and seventeenth centuries, students and scholars did not restrict their studies to the learning and teaching of one university only; it was the custom after visiting one or more universities at home to travel, although travelling was not an easy matter then, to the foreign seats of learning, and to attend the lectures at French, Netherlandish, and Italian universities; hence we find in many of these students' Albums entries from Bourges, Orleans, Besançon, Paris, Louvain, Leyden, Padua, Bologna, Sienna, etc. Of course, the custom of attending foreign universities was not confined to the Continent: it was also in vogue amongst English scholars and students; thus amongst others we find Sir John Cheke, once the tutor of Edward VI, at Strasburg and Bâle, and in 1555 lecturing at Padua; another learned Englishman, Richard White of Basingstoke, a fellow of New College, Oxford, we meet with at Louvain, then at Padua, where he was created Doctor of Civil and Common Law.

Now, as to Keil's statement that the custom of the Album Amicorum dates as far back as the end of the fifteenth century, and that it had become fairly general at the time of the Reformation, this again must have been based on some misinformation or misconception, as no evidence whatever can be found in its support.

Beside the forty Albums and about five hundred loose leaves in my own collection here exhibited, I have searched the marvellous collection of Albums (there are about 400) in the MSS. Department of the British Museum, the catalogues of the Heraldic Exhibition at Edinburgh, and of the exhibition recently held at Leipzig in connexion with the University jubilee; I have made inquiries at Berlin, Weimar, and of Dr. Albert Figdor at Vienna, who owns an important collection, and I have also seen a MS. catalogue of the extensive collection, now dispersed, of the late Frederick Warnecke; but with the exception of one single specimen mentioned by him, containing inscriptions dated

1548 to 1568. I have not seen any of an earlier date than 1554. The specimen mentioned by Warnecke is a printed book, Melanchthon's *Loci Communes Theologici* (Leipzig, 1548), which its owner, Cristoph von Teuffenbach, whilst a student at Wittenberg University, had bound up with thirteen blank leaves at the beginning and ten at the end, and these leaves contain inscriptions only of his friends in the years 1548 to 1568.

Many of the earliest Albums were printed books, with or without woodcut illustrations, a number of blank leaves having been added at the beginning and end, or having been interleaved. The favourite books for this purpose were the Emblems of Andrea Alciati, of which between 1531 and 1570 alone as many as seventy-five editions had been issued at Augsburg, Paris, Lyons, and Frankfort, but chiefly at Lyons; other books of Emblems by Hadrian de Jonghe, Joannes Sambucci, Nicolaus Reussner, and others; and different editions of Holbein's *Dance of Death*, the *Biblische Figuren* of Virgil Solis and Jost Amman, etc. As I stated before, all these books were interleaved with blank leaves, but as early as 1558 there occurs the first book published expressly for the purpose of an Album Amicorum (plate XXI). It was produced under the title *Thesaurus Amicorum* by Jean de Tournes at Lyons, and is not dated, but cannot be later than 1558, as, according to Brunet, a second edition under a different title appeared in 1559. A certain number of its pages contain short sentences in many different languages and portrait medallions of celebrities of ancient history, in addition to those of Erasmus, Melanchthon, Nicolas' Glenard, and Clement Marot; the remaining pages were left blank, but all are surrounded by very beautiful woodcut borders of three different styles, namely: (1) those with grotesque and free subjects, (2) arabesque borders in black on a white ground, and (3) others in white on a black ground.

These borders were formerly attributed to Geoffrey Tory, but they are probably the work of Solomon Bernard, called "le petit Bernard"; they occur again and again in issues of the Lyons printers of that period, and in my opinion some of the woodblocks for these borders, or woodblocks of similar design by the same master, have been used for impressing the arabesque ornaments on the celebrated Henri II. ware, now called *fayence d'Oiron*, of which some beautiful examples may be seen at the Victoria and Albert Museum.

As far as I have been able to discover, the next book issued for the purpose of an Album Amicorum without text but with woodcut borders is the Album of Eberhart ab Eltershofen (Bibl. Eg. 1189), which must have been published in or before 1571, as its inscriptions begin in that year; the woodcut border is probably by Joh. Züberlin.

The fashion of the Album having become more general in the seventies of the sixteenth century, artists and publishers came forward to supply books

specially designed for the purpose, containing woodcuts of religious or mythological subjects, and emblems or shields of arms of celebrated personages, such woodcuts facing either blank pages or pages with blank shields, intended to be illuminated with the arms and to receive the inscriptions of the owners' friends.

The most notable publications were :

I. *Flores Hesperidum. Pulcherrimae Gracciae comicorum sententiae, cum duplici eorum versione latina. . . .*

Stain oder Gesellenbuch. Mit vil schönen Sprüchen. . . . MDLXXIIII.

Colophon : Gedruckt zu Franckfurt am Mayn bey Georg Raben, in verlegung Mathes Harnisch, Bürgers und Buchführers zu Heydelberg. MDLXXIII.

This book is in the British Museum (Bibl. Eg. 1195), and was used as an Album by Andreas Rümelin in 1576.

II. *Ain Newes mund künstlich schönes Stain oder Gesellen Büchlein. . . . Hab ich David de Necker Formschneider von Augspurg . . . zugericht . . . im 1579 Jahr.*

Colophon : Gedruckt zu Wienn in Osterreich durch David de Necker, Formschneider Anno 1579.

III. "*Anthologia Gnomica.*" *Illustres veterum graecae comoediae scriptorum sententiae, prius ab Henrico Stephano, qui singulas Latine convertit, editae; nunc duplici insuper interpretatione metrica singulae auctae, inque gratiam studiosorum, quibus et variae scutorum natalitiorum imagines libello passim insertae usui erunt, in hoc Enchiridion v. CL. D. JOH. POSTHII, GERMERSII, Archiatri Wirzburg, et P. L. auspiciis collectae a Christiano Egenolpho Fr.* MDLXXIX.

Colophon: Impressum Francofurti ad Moenum, apud Georgium Corvinum, Impensis Sigismundi Feyrerabendij. MDLXXIX.

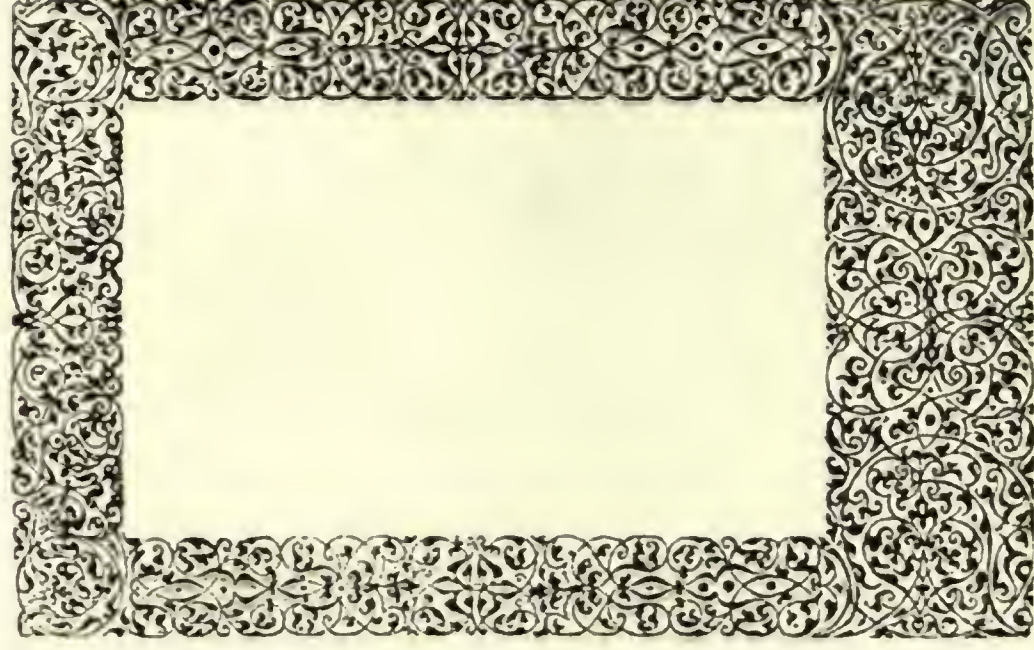
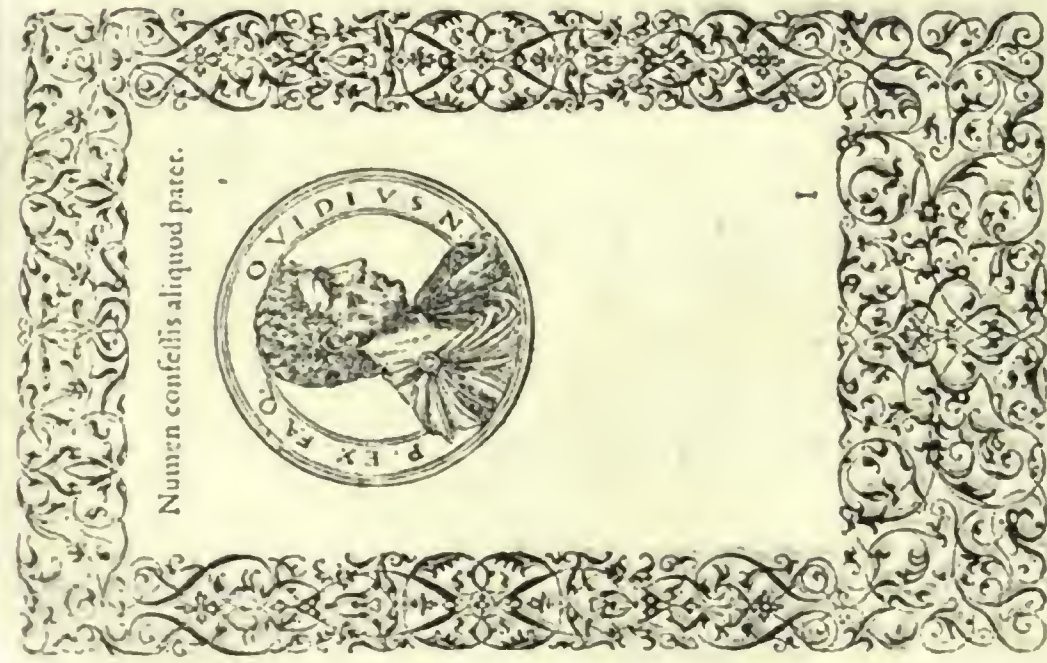
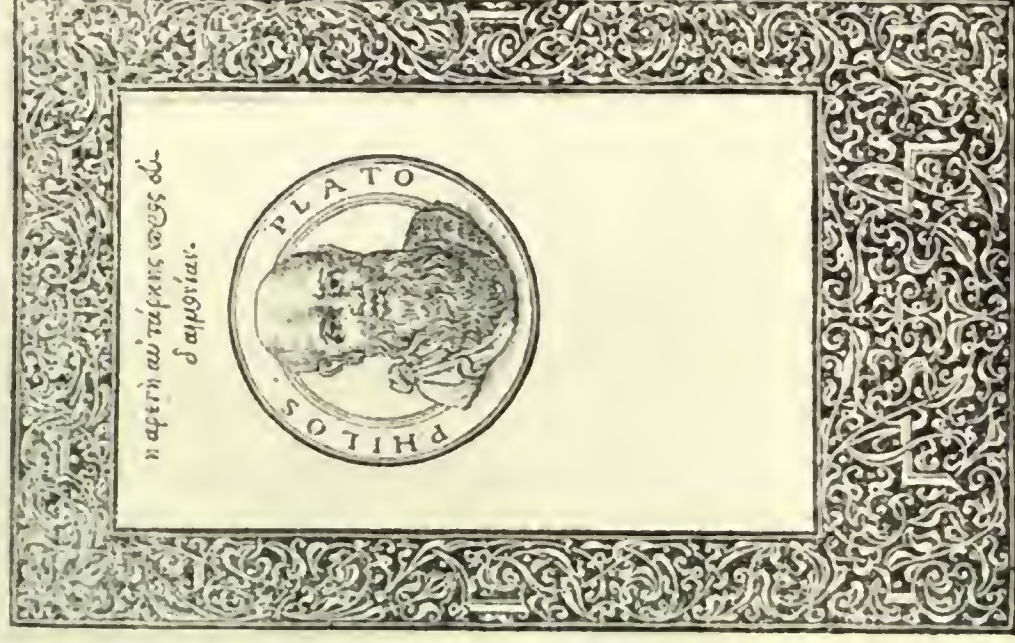
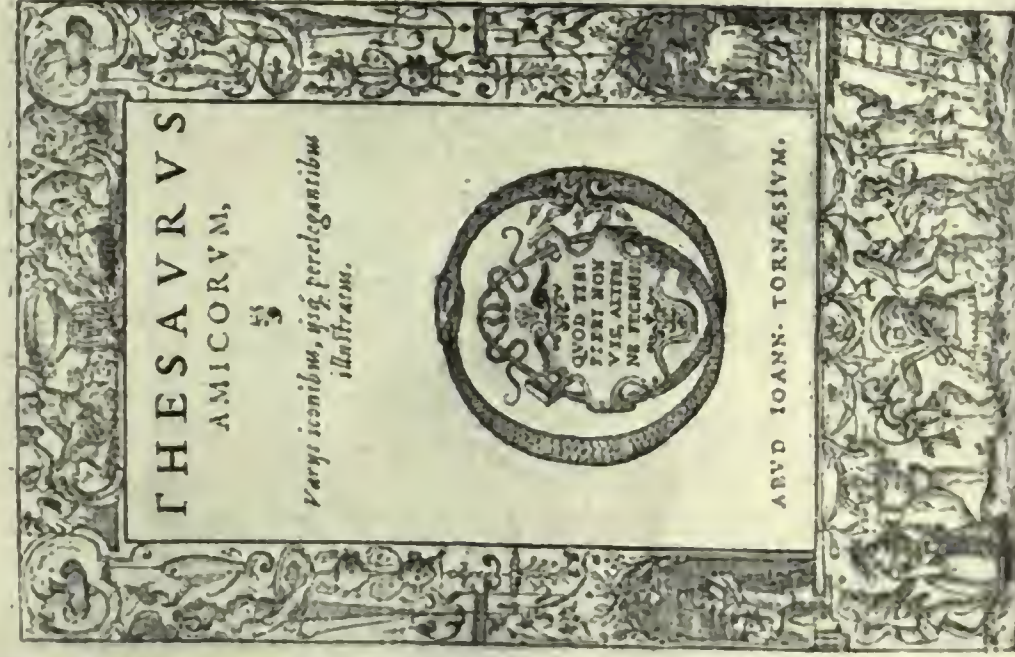
The woodcuts, costumes, and blank shields are by Jost Amman. This book has been interleaved for Johann Josias Kiesen of Waiblingen, and contains inscriptions and the arms of his friends in the years 1590 to 1594. The following is an example of one of the entries. At the head of the page, above the shield, is written :

"An Gottes Segen, is Als gelegen"

1594

The shield bears : *per fess azure and bendy of six gules and silver, in chief a griffin passant gold*, and below is the inscription : "Zu freundtlicher Gedechnuss Georg friederich Röm. Kay. May. Hardtschier. Regenspurg d. 6. 7th." (The Hartschiers were His Majesty's bodyguard.)

Another copy of the *Anthologia Gnomica*, belonging to our Fellow, Mr. Emery



Walker, has been used as an English armorial, and some of the blank shields have been blazoned with English arms about the beginning of the seventeenth century.

A German edition of these woodcuts with different text appeared in the same year under the title:

IV. *Stam̃ oder Gesellenbuch. Mit vielen schönen Sprüchen auch allerlei offenen und bürgerlichen Schildten und Helmen. Allen Studenten und sonst guten Gesellen, so entweder ire Wapen, Reimen und Sprüch, zur gedechtnuss einander verlassen wollen . . . Durch einen Studiosum zu Franckfurt am Mayn . . . 1579.*

Colophon: Gedruckt zu Franckfurt am Mayn bey Georg Raben in verlegung Sigmund Feyrabends MDLXXIX.

Of this edition I only possess eleven leaves, with autographs dated 1585 to 1587 and the blank shields illuminated with the signatories' arms.

A second edition appeared in 1583 under the same title but with the Colophon: Getruckt zu Frankfurt am Mayn durch Peter Schmidt in Verlegung Sigmund Feyrabends.

A copy of this edition is in the British Museum (Bibl. Eg. 1216), interleaved with blank flowered paper for Hanns Brunnhofer of Iglau, and contains a few miniatures, shields of arms, and inscriptions of his friends at Prague dated 1592-1597.

V. *Insignia sacrae Caesareae Majestatis, principum electorum, ac aliquot illustrissimarum, illustrium, nobilium, et aliarum familiarum, formis artificiosissimis expressa . . . His adjecta sunt totidem vacua (uti appellant) scuta . . . Omnia in gratiam studiosorum . . . Francofurti ad Moenum MDLXXIX.*

Colophon: Impressum Francofurti ad Moenum, apud Georgium Corvinum, impensiis Sigismundi Feyerabendii. MDLXXIX.

This book contains woodcuts by Jost Amman of arms, costumes, mythological subjects, and blank shields. My copy has been interleaved for Heinrich Schott and contains only one inscription, dated 1602.

In the same year (1579) appeared a German edition under the title:

Stam und Wapenbuch hochs und niders Staudts, Darinnen der Romischen Keys. Mt. dess heiligen Röm. Reychss Churfürsten, Fürsten, Grafen, Freyen und Herrn, Auch deren vom Adel, und anderer vom gutem Geschlecht herkommenen Personen, Wapen mit iren Schildt und Helmen . . . eygentlich und auff's fleissigst zugericht. Mit angehengten vielen ledigen Schildten und Helmen . . . Zu nutz und ehren allen der Kunst Liebhabern, Gelehrten und Ungelehrten . . . durch Sigmund Feyrabend. Gedruckt zu Franckfurt am Mayn . . . MDLXXIX.

A second German edition appeared in 1589 with only slight differences; on

fo. 4 verso is a woodcut with the elector of Saxony on horseback, and the numbering of the pages in black-letter and Arabic numerals.

VI. *Cato : sive Speculum morale ; Privatum vitae genus concernens : quod in locos suos redactum, et tam Plautidis Graeca, quam rhythmorum vernacula versione expolitum, instar ALBI AMICORUM se habet.*

Sittenspiegel Catonis : Das menschliche privat Leben betreffend, in ein richtige Ordnung gebracht, und sowol in Schulen als anstatt eines Stammbuchs zugebrauchen.

In Zoilum :

Me mea delectent, tua te, sua queng innuabunt,

Sic tua nec curae sunt mihi ; redde vices.

Francofurdi, Apud Joannem Wechelium MDLXXXV.

Colophon: Francofurti, Apud Joannem Wechelium MDLXXXV.

This book (British Museum 27579) has been interleaved for Johann Cellarius of Nürnberg, and contains the arms and inscriptions of his friends, many of them Nurembergers, dated 1599–1606; on p. 88 is a fugue by John Dowland, the composer, signed: "Jo. dolandi de Lachrimae his own hand." This inscription has already been mentioned by our Fellow, Mr. W. Barclay Squire, in his article on John Dowland in the *Dictionary of National Biography*.

On p. 118 is an entry by Nic. Taurellus, a well-known professor of medicine at Altdorf, dated 1599. By this Nicolaus Taurellus we have a book, printed for the purpose of an Album, under the title:

VII. *Emblemata physico-ethica, hoc est, Naturae morum moderatricis picta praecepta . . . Noribergae Excudebat Paulus Kaufmann MDXCV.*

The backs of the woodcuts, which are copies after Jost Amman, have been left blank for inscriptions. Brunet only mentions two later editions of 1602 and 1617.

Another copy of the first edition is at the British Museum (Bibl. Eg. 1230), interleaved for an Album of Andreas Schopper of Nuremberg, and contains inscriptions of his friends at Altdorf in the years 1603–1621.

All the books hitherto mentioned contain woodcut illustrations only, but the following, issued as Albums, have copperplate engravings, the most artistic ever published for that purpose; they were engraved and published by Theodore de Bry, born at Liège in 1528, a goldsmith and engraver who came in 1570 with his two sons, Johann Theodore and Johann Israel, to Frankfort, where he established himself as an engraver, bookseller, and publisher.¹

¹ He, his sons, and Mattheus Merian, the son-in-law of Johann Theodore de Bry, were the engravers, editors, and publishers of the American, African, and Indian Voyages, 1590–1634, and to make arrangements for these publications Theodore de Bry, and probably his son Johann Theodore, came to London in 1586; on a second visit, 1587–1588, he, or they, engraved the funeral procession of Sir Philip Sidney, after the designs of Thomas Lant, Portcullis pursuivant.



1. THEODORE DE BRY, 1592



2. JOHANN THEODORE DE BRY, 1611

ENGRAVED TITLES, ETC. BY THEODORE AND JOHANN THEODORE DE BRY

Published by the Society of Antiquaries of London, 1910

Theodore de Bry's first Album (plate XXII. 1) appeared in 1592 in oblong duodecimo under the title:

VIII. *Emblemata nobilitati et vulgo scitu digna: singulis historiis symbola adscripta et elegantes versus historiam explicantes. Accessit Galearū expositio, et disceptatio de origine Nobilitatis. Omnia recens collecta, inventa, et in aes incisa a Theodoro de Bry Leodiense.*

Stam und Wapenbuchlein wolgestellte und künstliche figuren, sampt derē Poetischē erklärung, auch vō Adels ankünfft beid für Adelspersonē, undt allerhandt Standt, vō newem in Kupffer gestochen, durch Dieterich von Bry Leodiē.

IX, X. A year later, in 1593, Theodore de Bry issued two further editions (plate XXII), but the oblong duodecimo had now become an octavo by the addition of borders of marvellous design and ornamentation, betraying the hand of the goldsmith.

The differences in the two editions of 1593 are slight; the engravings were left untouched, but some careless spelling in the printed text was corrected and a different type used in the later edition.

In the British Museum (Bibl. Eg. 1224) is the Album of an unknown person containing all the engraved blank shields and one subject plate, No. 16 of the 1592 edition, with a few inscriptions dated at Altdorf in 1599; there are also two perfect copies of the 1593 early edition, one of them (Bibl. Eg. 1539) used as an Album by Martin Hillinger, junior, in the years 1600 to 1607, and the other (Add. 19477) by Daniel Rindfleisch, M.D., of Breslau, in 1602 to 1619.

In 1596 Johann Theodore and Johann Israel de Bry, who were associated with their father as engravers, publishers, and booksellers, issued another Album of which I have not yet seen a copy, but I understand that its second edition of 1611, which I am exhibiting (plate XXII. 2), is almost identical and differs from it in small details only, such as renumbering of plates, and the mention of the name of Johann Theodore de Bry only, without that of his brother Johann Israel, who had died in 1611; it is called:

XI. *Emblemata Secularia. Mira et jucunda varietate seculi hujus mores ita exprimentia, ut Sodalitatum Symbolis Insigniisque conscribendis et depingendis peraccommoda sint. Versibus latinis, rhythmisq. Germanicis, Gallicis, Belgicis: speciali item Declamatione de literarum studiis exornata.*

Weltliche lustige neue Kunststück, der jetzigen Weltlanff fürbildende, mit artlichen Lateinischen . . . Reimen geziert, fast dienstlich zu einem zierlichen Stamm und Wapenbüchlein. Artificiosè et eleganter in aere primò sculpta . . . per IO. THEODORUM DE BRY, CIVEM OPPENHEMI Typis IHERONYMI GALLERI, ANNO MVDVS SEVESCIT (1611).

Its engravings are not so fine as those of the 1593 Album; the subjects depicted, some a little coarse, others rather free, simply represent the culture, morals, and humour of the period, and in his preface the author avers that his reason for depicting them was not to make the godless worse, but to improve their morals by depicting things he wished them to avoid.

A third edition appeared in 1614 under the title:

Pourtraict de la Cosmographie morale, c'est à dire une centurie des plus belles inventions . . . pour presenter et corriger les moeurs. Francfort. J. Theodore de Bry. 1614.

and a fourth in 1627 by Wilhelm Fitzer of Frankfort, who after Johann Theodore de Bry's death in 1623 appears to have taken over his publishing business.

These are the most important engraved Albums; it would take me too far to describe here the large number of other books printed for the purpose in the seventeenth century. Many of them are not only poor works of art, but their text coarse and indecent; a few exceptions are:

XII. *Viridarium chymicum, d. i. Chymisches Lustgärtlein, mit Poetischen Gemälden in Kupfer gestochen, so zu einem Staunmbuch sehr dienlich . . . durch Daniel Meissner . . . Frankfurt, Lucas Jennis, 1624.*

This book has been used as an Album by Samuel Crämer, a medical student of Leutschau, and contains inscriptions of his friends at Dantzic, Königsberg, Magdeburg, Leipzig, Wittenberg, and other places in the years 1635 to 1639.

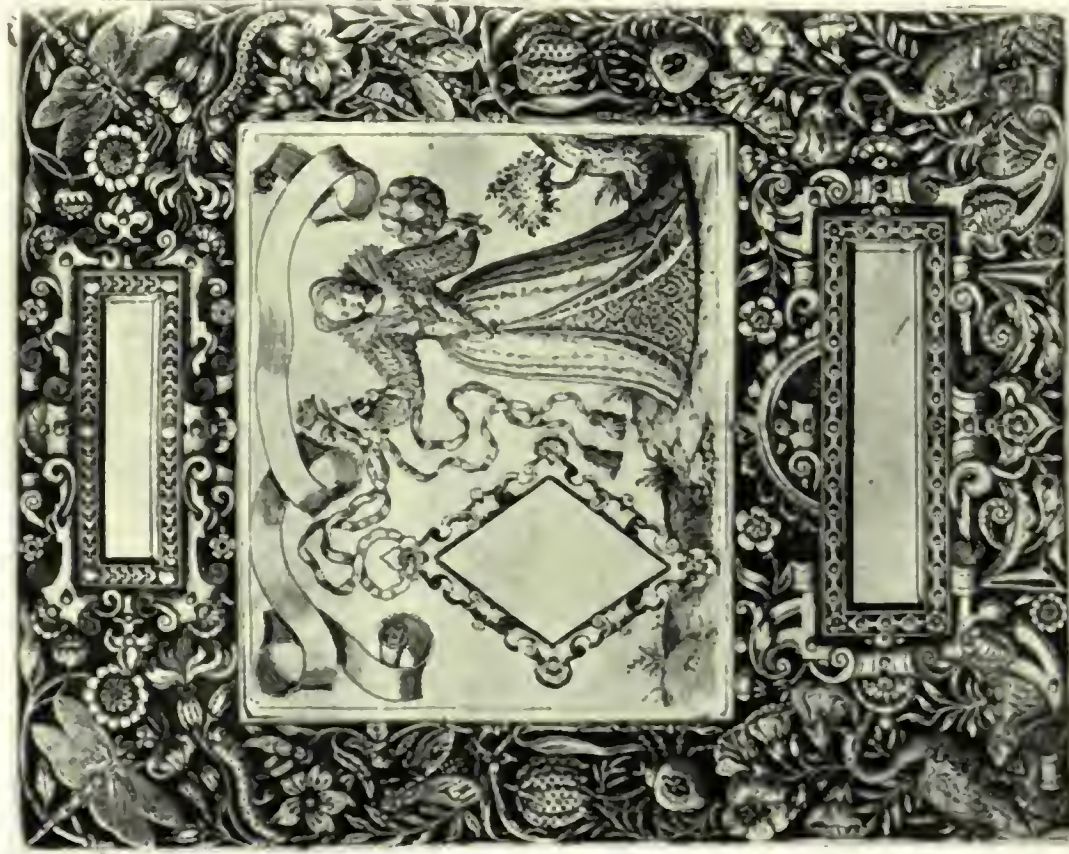
XIII. *Thesaurus Philo-Politicus hoc est: emblemata, sive moralia politica, figuris aeneis incisa ad instar Albi amicorum . . . inventione Dan. Meisneri. . .*

In eight parts with about 400 engravings by Matthæus Merian; Frankfurt am Main: Eberhart Kieser, 1624-1626.

XIV. *Thesaurus Sapientiae civilis . . . Opusculum . . . loco Albi Amicorum . . . conscriptum à Daniele Meichsuero . . . Francofurti, 1626.*

In some of the earliest Albums, the interleaved printed books, we do not find any shields of arms, but only inscriptions consisting of some motto or device, classical or scriptural quotation with a signed dedication, and sometimes the mottoes and devices were only expressed by the first letters of the words composing them. These mottoes and quotations were of infinite variety: they were Latin and Greek, classical or scriptural, Hebrew texts of the Old Testament, original compositions of a moralizing nature in poetry and prose, witty, humorous, often coarse and sometimes obscene, especially in the seventeenth century.

Although the Album Amicorum was chiefly in use amongst students at the universities, it had gradually become a fashion in wider circles: amongst the



ENGRAVINGS BY THEODORE DE BRY, 1593
 Published by the Society of Antiquaries of London, 1910


owners we find princes and nobles, high officials, ecclesiastics, and soldiers; physicians, lawyers, and teachers; painters, musicians, merchants, and artisans. A curious calling is represented by the owner of an interleaved copy of Joannes Sambucci's Emblems, who styles himself "Pest Barbier Gehülfe", that is "Assistant to a Plague Barber Surgeon".

There is also the Album of a Court and Field Trumpeter of the Elector of Mainz, where we encounter the signatures of nearly all the field trumpeters of the Holy Roman Empire.

The armorial bearings in the Album Amicorum are often beautifully drawn and illuminated, and make us desirous to know more of the artists who painted them. Keil¹ suggests that they were roving painters, travelling from court festivity to court festivity, from tournament to tournament, to paint there the arms of princes, nobles, and knights, to whom the Album, after dedication and signature had been entered, was handed to add the coat of arms.

But this again is a fanciful theory and cannot be upheld. In the fifties of the sixteenth century, the time of the earliest Albums, the tournament was a thing of the past and only occasionally revived as a pageant.

It was the custom for artists and craftsmen to travel and work abroad before becoming certified masters and members of their guilds, and some of these travelling artists may have had a share of the work, but generally speaking I must assign it to professional painters, limners, or illuminators, established in almost every important place, whose profession it was to illuminate the manifold documents of their period, official or otherwise, such as patents of nobility, grants of arms, and other privileges.

In Germany they were called *Briefmaler* and *Illuminirer*: they often were *Formschneider*, that is, wood engravers, who kept shops or stalls where they sold their illuminated woodcuts and broadsides. In Nuremberg alone, between 1550 and 1600, I can trace more than fifty of these professional illuminators, and in some Albums which I shall presently describe we find some of their monograms on the shields of arms; for instance, M. W., S. K., D. N. (probably David de Necker), H. W. (probably Hans Weigl), and G. M. (Georg Mack of Nuremberg), of whom we shall presently see in a Nuremberg Album a personal inscription with an illumination showing his shield, *per fess his housemark*  and the arms of the guild of painters, *gules three silver escutcheons*. Are not these arms of the painters' guild very significant? Nothing could show more pointedly that their original occupation was the painting of arms.

In connexion with the painting of these shields of arms I have to enter on the somewhat sordid but quite important question, who had to pay the artist? Was it the owner of the Album or his friend? I think it was the latter, and imagine

¹ *Die Deutschen Stammbücher*, R. and R. Keil, p. 6.

the *modus operandi* to have been as follows: At or after a pleasant meeting the friend, after inscribing his motto or quotation, dedication and signature, and having left a space for his arms, would hand it back to its owner with a sketch for the arms, accompanied by a certain amount of ducats, thalers, or florins, measured by his opulence and position, and in accordance with the more or less elaborate work required, requesting him to have the arms filled in as soon as opportunity allowed. As a rule this was properly carried out, but often, too often, these spaces were left blank and never filled in, although in many instances the dedication expressly mentions that in memory of everlasting friendship N. N., the friend, had had this shield of arms painted. For instance, the inscription (Album Amicorum Gros, fo. 68) "Nobili et ingenuo adolescenti Ernesto Gros, Pfersfelder Dicto in perpetuam sui memoriam haec sua insignia pingi curavit Carolus Philippus de Welder" is not accompanied by the arms.

The omission may be explained in two ways; either the friend forgot to hand over the necessary ducats, thalers, or florins, or the owner had received them and absent-mindedly spent the money in a more congenial way. I believe the one thing happened as often as the other.

Occasionally we find in the Albums portraits and shields of arms in wood-cut or copperplate engraving by Virgil Solis, Jost Amman, Tobias Stimmer, Hans Sibmacher, and other artists, illuminated or in their original state, and bearing, either in a cartouche forming part of the engraving, or on its margin, the autograph motto, dedication, and signature of the contributor. These engravings were often used by their owners as bookplates, but on the other hand some of them, described in certain *Ex libris* collections as "very rare" or "not described by Warnecke", were not engraved for that purpose and probably were made for men who never cared for the possession of a book.

Particularly amongst the rich patricians of Augsburg and Nuremberg the Album was in great favour, and if we had a catalogue of all the specimens existing, we should find that a large proportion was owned by them; and furthermore we should meet with only few Albums that did not contain the arms of either an Imhof, Haller, Kress, Holzschuher, Pömer, Welser, Ölhafen, Harsdorfer or other patricians of Nuremberg, or a Fugger, Welser, Rehlinger, Langenmantel, Ilsung, Paumgartner, or other patricians of Augsburg. The reason is not far to seek; in the first half of the sixteenth century the bankers and merchants of Augsburg and Nuremberg were the most important in the world, having establishments and factories everywhere, and accumulating enormous fortunes, especially the Fuggers and the Welsers, who often supplied the monarchs of Europe with the sinews of war, and were the Rothschilds and Morgans of their period. Is it to be wondered at, that their scions in the second

Handwritten text in a cursive script, possibly a signature or a short letter.

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half of the century, whilst visiting the universities and travelling over the world, should be singled out as particularly worthy subjects for the Album? In one Album at the British Museum (Bibl. Eg. 1553) there are not less than seven inscriptions with arms of different Fuggers, and there are only few of this period that do not contain the arms and inscription of either a Fugger, a Welser, an Imhoff, or a Tucher.

Autographs of King Charles I. occur in six different Albums, four of them of foreign visitors to England, the fifth that of Sir Thomas Cuming, and the sixth that of Charles Louis the Elector, and they are all accompanied by the significant motto: "Si vis omnia subicere subice te rationi." In 1609 (Sloane 3415) he signed: Ebor-Albanæ D.; in 1613 (17083) the motto and signature Carolus P. faces a painting with his portrait and the arms of England with a label, surrounded by the Garter; the entries of 1616 (15736 and Bibl. Eg. 1220) and 1618 (Bibl. Eg. 1257) bear the signatures Carolus P. and the entry of 1626 (King's 436) is signed Carolus R.

One need hardly point out that in the arrangement of the Album due respect was paid to rank and station; thus we find the entries of princely personages always at the beginning, followed in carefully considered gradations by those of counts, barons, nobles, knights, and commoners, and towards the end the autographs of people considered to be of lower rank or estate.

Having seen so many signatures of the sixteenth and seventeenth centuries, may I suggest an explanation for the origin of the flourishes attached to signatures, and which we consider either a meaningless addition or a special precaution against forgery or an attempt at ornamental decoration? I consider them the outcome of the words *manu propria* added so often and in countless varieties to the signatures, and a glance at a number of them, all with the words *manu propria* or their abbreviation twisted into different shapes and flourishes, will prove my contention (plate XXIV).

The owner of an Album did not lose interest in his book with advancing age; on the contrary, we find in many of them his personal notes showing that from afar he followed his friends' careers with keen interest. For instance, "Hic jam est Archiepiscopus Salisburgensis"; then again, when he received news of his friend's demise, he added a cross with such remarks as "Gnad Dir Gott", "Gnad ihm Gott", and sometimes he added particulars of his friend's death, like "Obiit Venetis 1601" or "Blieb vor Nördling 1634" (fell at the battle of Nördlingen 1634) (Album v. Brandt, f. 59).

I now proceed to the description of a number of Albums in illustration of what I have said.¹

¹ The references to the arms occurring in the Albums are abbreviated thus: R.=Rietstap, *Armorial General*, Gouda, 1887; S.=Sibmacher, *Neues Wappenbuch*, 1655-1667. Other abbreviations are B.M.=British Museum; R.C.=Rosenheim Collection.

No. I (B.M. Bibl. Eg. 1178). The Album of Johannes Spon (Span) of Augsburg is the earliest I have met with. It contains autograph inscriptions of his fellow students at Wittenberg in the years 1554 to 1559; one of the inscriptions on f. 6 and f. 7 is as follows:

Gut macht Mutt
Mutt macht Ubermuth
Ubermut macht Stoltz
Stoltz macht Krieg
Krieg macht Armuth
Armuth mehr thutt
Und dass macht wiederrumb Demuth
Bartholo: Thymeus, Wartenbrugsius
9 November 1554.

No. II (B.M. Bibl. Eg. 1179). A printed book, *Imagines Mortis*, Lyons, 1547, with woodcuts after Holbein, contains on its margins autograph inscriptions, dated 1555-1560, of the owner's friends. Amongst the inscriptions are the following:

f. B5 ^b .	15 - E - 55 "Ich wags Gott vollends" Ernst von Wirsberg
f. c4.	15 K 55 "Was Werden Will Wirdt Wol" Christoph Noël, Tyrol.

No. III (R.C.) The earliest book in my collection is a printed book, *Emblemata Andreae Alciati* (Lyons, 1548), interleaved for a student at the University of Ingolstadt; the first eight pages contain coloured drawings representing the arms of: I, the Papal See; II, the Holy Roman Empire; III, Albert, Duke of Bavaria; IV, Eberhard von Hirnheim, Bishop of Eichstädt and Chancellor of the University; V to VIII, the Faculties of Theology, Law, Medicine, and Arts. Then follow the signatures, mottoes or initials, and arms of the owner's fellow students, dated 1558 to 1560. An uncommon feature of this Album is that the signatures are placed within scrolls above the arms, instead of underneath, as was the ordinary practice. Amongst the entries are the following:

f. 14.	15. A. G. H. F. 59 . HK. Otto A Freyberg Arms (S. i. 83; R. i. 712)
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f. 45. Carolus and Raymundus Imhof
Arms (S. i. 206)

f. 118. Hanns Georg vō Gemmingen
E W D W

1559.

Arms: *azure two gold bars* (S. i. 122)

f. 174. Wilhelmus Comes Junior in Öting (Oettingen)
1559.

Arms: *Vairy gules and gold an escutcheon azure, over all a saltire silver* (S. i. 16: R. ii. 341).

No. IV (B.M. Bibl. Eg. 1182). A printed book: *In Evangelia quae usitato more Diebus dominicis et festis proponantur Annotationes Philippi Melanthonis, Recognitae et auctae adjectis ad finem aliquot Concinnulis. Wittebergae Ex officina Johannis Luft 1555*, to which twenty blank leaves have been added at front and back for Johann Klarner; it contains inscriptions dating from 1560 to 1607, amongst which are the following:

f. 2. Georgius Major (Professor of Theology at Wittenberg, friend of Luther and Melancthon).

f. 6. Martinus Lutherus tertius, 1560.

f. 11. Justus Jonas, 1561 (this is the son of Justus Jonas the reformer and Luther's friend; he was born at Wittenberg, 1525; became Professor of Law at the University; getting implicated in the "Grumbach" affair and outlawed he fled to Copenhagen, where, on the insistence of the Elector of Saxony, he was beheaded on the 28th June, 1567).


f. 20^b. Nicolaus Varnbulerus J. U. D. 1562 (a professor of law at Tübingen University).


f. 408. Lucas Osiander (the elder), Tübingae 1564.

f. 408. Marcus von Zinzendorff.

No. V (B.M. Bibl. Eg. 1184). One of the most interesting Albums I have seen, not only on account of its beautifully illuminated shields of arms with the monograms of the artists mentioned before, but also for the large number of inscriptions by learned men and notable Nuremberg people. It is the Album of Hieronymus Cöler of Nuremberg (plates XXV, XXVI) with inscriptions and the arms of his friends, fellow students, and learned men at Wittenberg in 1561-1562, Nuremberg and Ingolstadt 1563, Tübingen 1564-1565, Strassburg and Baden 1565, Augsburg 1566, Spire 1566-1570, Nuremberg 1571-1572, Vienna 1572-1575. Amongst the entries are the following:

f. 2^b. A coloured woodcut of St. Jerome (plate XXV. 1); at the base of the

tree between the initials G. M. with date 1571 is a shield *per fess gold and gules, in chief the housemark*  *sable and in base three escutcheons silver.* "Meinem günstig und altenbekannten Herren Jheronimus Cöler hab ich Georg Mack Illuminist Mitburger zu Nurmberg disenn Jheronimum Jn das Buch illuminiret mein im besten zu gedencken geschehen den 2 Dag October in 1571 Jar."

f. 5^b. Coloured woodcut portrait by Jacob Züberlein of Tübingen, whose monogram  is on the lower left corner. "Viva imago illustrissimi principis et domini Domini Nicolai Christophori Radziwil, Ducis Olicae et Nieswisi &c." Facing:

f. 6. 1565 Mensis Janu. 15

"Florentinus 1. 3 ff. de Justitia et Jure. Cum inter nos cognationem quandam natura constituerit, consequens est hominem homini insidiari nefas esse."

Nico: Christ: Radziwyl Dux in Olika et Nies: Comes in Schidlowiecz manu propria scribebat Tübingae.

f. 8ⁿ. Arms: *per fess flory gules and silver, in base a red rose* (S. ii. 73: R. ii. 286).

"VIVE VT VIVAS."

Wolffgangus Muntzer de Babenberg, Eques Auratus.

f. 9. Five sentences in Greek, Latin, Italian, and German.

Wolff Muntzer von Babenberg, Ritter

Jn aller Lieb unnd freundschaft

Im 1571 Jar

f. 15. Arms: *gold a right arm sable issuing from a cloud holding a frying-pan over flames, in chief a gold estoile* (R. ii. 426: S. ii. 161).

Signed with the initials of the artist: G. M. and 71 (Georg Mack, 1571).

"Mein Hoffnung zu Gott"

Anthonj Pfann 1571.

f. 15^b. Arms (S. i. 206: R. ii. 90) Mathias Löffelholtz de Colberg.

f. 16. Arms (S. i. 205: R. i. 531) Georgius Tetzell 1571.

Both signed with the initials G. M. (Georg Mack).

f. 16^b. 1563

"Lieber Son sey frumb und thu Rechtt
Das du nitt seist der Sunden Knechtt
Gott soltu stetts vor augen han
und getrew sein bey Jederman
Red wennig, hörre aber vill
Vermeÿd fürwitz, bös gsind und Spill

Vollsattffer, und all bösse stück
 so kanstu haben gutt gelück
 Betten dir auch bevolhen sey
 Das Gott der Herr erken dabeÿ
 Das du In halttest für deinen Gott
 und er dich tröst in aller nott
 Solches als wünsch ich von Herten dir
 Wiltu weis sein, so folge mir
 Jheronimus Cöler Bürger und des
 Heilligen Römischen Reichs zu Nürmberg
 Statt Richter u. dein getrewer Vatter.
 meines Altters Im * 56 * Jar. Gott lob."

Note by the son: "Parens carissimus omnique reverentia venerandus, ex hac mortali, ad aeternam in vera fide ac filii Dei invocatione, emigravit vitam ultima Januarii Anno 1573 cum triduo ante absolverat annum sexagesimum sextum." Facing:

f. 17. Two shields accolé: I, *per fess counterchanged silver and sable in chief a demi-eagle and in base a wheel* (Cöler); II, *gules on a bend silver three red roses*, quartering Groland, Nützel and ? Schütz.

On f. 17^b and ff. are inscriptions and coats of arms of Barthol. Pömer, Wolff Pömer, Hieronymus Paumgartner, Anton Geuder, Caspar Tucher and Hans Tetzl, all of Nuremberg, dated 1563.

f. 28^b. An inscription.

Cyprianus Leovitius à Leonicia, Mathematicus
 6 May 1566. Augustae in comitiis subscripsit.

29 ff. Inscriptions dated 1563 and 1564, of Jacob Andreas, Provost and Chancellor of the University of Tübingen, Theodor Snepffius, Johann Brenlius junior, Johann Hochmann, Nicolas Varnbühler, Kilian Vogler, Samuel Hornmoldt, Valentin Voltz, Leonhard Fuchs, Johann Hyldbrand, all professors at the University of Tübingen.

ff. 65^b, 66. Inscriptions and arms: *gold on a bend sable an estoile between two gold crowns* (S. v. 217: R. ii. 593) Georg Roggenbach.

Spirae Nemetum 28 Octobris 1568.

f. 114^b. Beautifully written quotations in Greek, Latin, and German by Joh. Neudorffer junior, a celebrated writing-master at Nuremberg, with an inscription added in 1612, by his son Johann, a well-known physician, facing the shield of arms (plate XXVI. 1).

f. 115.

M . V . S . I . C . A .

"Nulla dies sine linea." M.D.LXIII.

"Festina lente."

Arms: *gold a double-headed eagle sable with a nimbus, dimidiated with sable two chevrons between three gold estoiles* (R. ii. 307) (plate XXVI. 2).

f. 155^b. Full-page arms of Hofman: *Per fess sable and gold a demilion rampant naissant to the sinister counterchanged* (R. i. 966) plate XXV. 2). On the pillars are the initials of the artist H. W. (probably Hans Weigl of Nuremberg).

Facing f. 156.

Inscription.

Hans Hofman, dein w. Schwager.

1565. M . F . I . E .

f. 158^b. Full-page shield of arms of Hess: *Sable a demi-man erased proper holding in his right hand a dagger, in his left a pair of gold callipers* (not in S. or R.). Facing this is an admonition in German verse by Mathes Hess to the owner, dated 1571, and below it a note in H. Cöler's hand: "Patronus ac Mecaenas studiorum summus, ex hac acrumnosa ad coelestem vitam evocatus. 14 Iunii, Anno 73."

No. VI (R. C.) The Album of Anton Walbott von Bassenheim is a printed book, *D. Andreae Alciati Emblemata* (Lyons, 1564), interleaved and bound for the owner whilst at the University of Louvain; it is in its original binding with A. W. A. B and date 1564 on front cover. The arms are finely drawn and of brilliant colouring. Amongst the entries are the following:

f. 23.

1565. "Noch ein Mall."

Arms (R. i. 485: S. i. 130).

Cuno Kratz von Scharpfenstein, den 13 November zu Löwen, allen zu Erhen.

f. 41.

15. S . E . A . 65.

Arms (R. i. 1118: S. i. 25).

Udalricus, Baron in Königseck et Aulendorff.

f. 52.

Arms (R. ii. 20: S. i. 108).

Georgius Christophorus Langenmantel.

f. 58.

1565.

Arms: *gold a millrind sable quartering silver three roses gules* (R. i. 899: S. i. 130).

Adolphus Hatzfeldt.

f. 72.

Arms (R. ii. 1064).

"W . D . H . W ."

Georg. Weÿss 1564 Lovanij Mens. Octob.

f. 143. "Ferendum et Sperandum."

W. W. W. W.

Arms (R. i. 1085: S. i. 187).

Georgius Ketteler.

f. 146. . 15 . Æ . 66 .

V. V. V. V.

Arms: *per fess counterchanged gold and gules in chief a rami's horn in base three estoiles* (R. i. 740: S. v. 90).

Johannes Guilielmus Ganzhorn, Franco.

f. 194. 15 * 65.

Unita virtus dissipata est fortior.

Arms (R. ii. 817: S. i. 111).

Joannes Dieboldus à Stadion amicitiae ergò scripsit Lovanij $\overline{\text{III}}$ Aprilis.

No. VII (B.M. Add. 18973). The Album of Andreas Tucher (fig. 1) of Nuremberg, of whom Biedermann says¹: "Andreas Tucher von Simmelsdorff, after having finished his studies, went in 1572 to Paris to attend the festivities held in honour of the King of Navarre's wedding, and his life was greatly endangered owing to the so-called 'bloody wedding' then taking place," meaning the night of St. Bartholomew. The inscriptions in this Album show us the universities he visited, and his itinerary to Paris; being dated at Nuremberg, 1566-1567, Strasburg, May, 1567-July, 1568, Wittenberg, August, 1569-August, 1571, Bourges, June, July, and up to 13 August, 1572, and then Paris "in festo Bartholomaei" (24 Aug. 1572). After his escape he went home, as the next entry is dated at Nuremberg, 8th March, 1573. Amongst the inscriptions and coats of arms we find those of many Nuremberg and Augsburg people, like Lazarus Spengler, An-

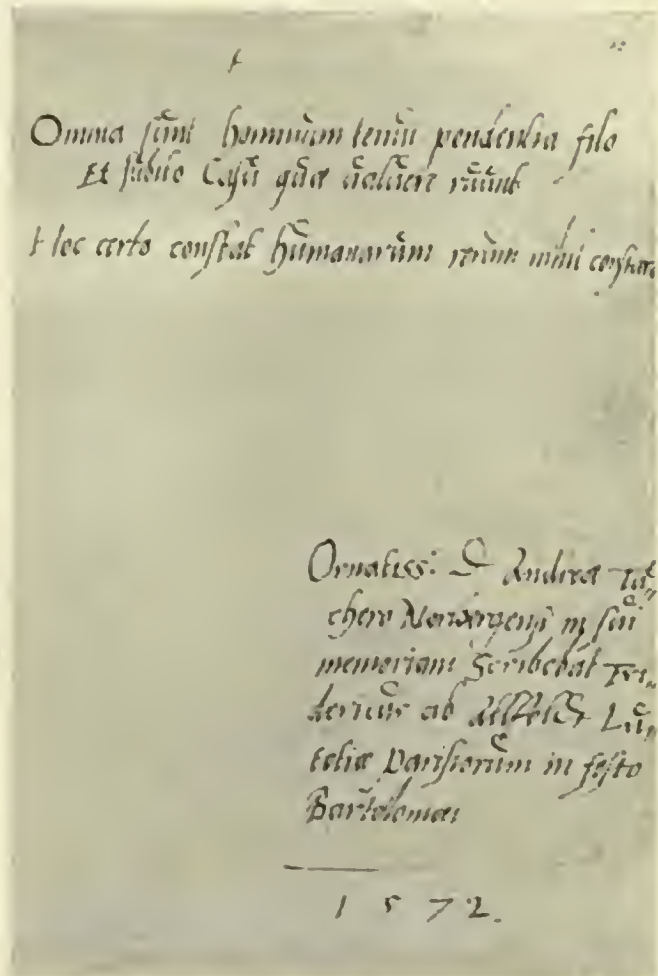


Fig. 1. Album of Andreas Tucher.

¹ Translated from Johann Gottfried Biedermann, *Geschlechtsregister des Hochadelichen Patriciats zu Nürnberg, etc.* Bayreuth. 1784.

dreas Örtel, Jeremias, Philipp and Carl Imhoff, Johan Friederich and Anton Felix Welser, Paulus Koler, Joh. Conr. Vöhlin, Gabriel Nutz, Maximilian Veit Holtzschuher and many others, but the most interesting is on

f. 63. "Omnia sunt hominum tenui pendentia filo

Et subito casu quae valere ruunt.

Hoc certo constat humanarum rerum nihil constare."

Ornatiss^o. D. Andreae Tucher^o Noribergensi in sui memoriam Scribebat

Fridericus ab Allfeldt.

Lutetiae parisiorum in festo Bartolomaei.

1572.

The inscription of Frederic von Allfeldt (Alefeld, Ahlefeld) sounds very prophetic. Did he know that something was going to happen that night?

No. VIII (R.C.) The Album of Sebastian von Stamps, Vienna, 1571-1583, is one of the most important specimens I have met with, important for its exceptional size, its interleaved sets of rare engravings some of which are illuminated, and its beautiful drawings.

It is an oblong folio, a size unusual if not unique for an Album Amicorum, and consists of sets of copperplate engravings, representing biblical and mythological subjects, by Philipp Galle, Dirk Volkaert Cornhaert, Cornelius Bos and others, after designs of Martin von Hemskerk and Francis Floris; it has been interleaved with blank sheets of drawing-paper.

On the two calligraphic title-pages, prettily ornamented in gold and colour; the owner sets forth his intention to collect in his Album or "Gselln Buech", as he calls it, the signatures, arms, crests, or housemarks of his friends, inviting them to select amongst the engravings the subjects most congenial to their tastes or callings, to get these engravings illuminated, and to insert their signatures and arms on the pages opposite.

His friends responded with a will: many of the full-page paintings, illustrating their callings, occupations, or predilections, are evidently the work of good artists; one bears the monogram M. W. and another the monogram EN (probably David de Necker); every one of them contains the arms of the signatory more or less prominently displayed.

Some of the entries are:

f. 14^b. Arms, two shields accolé: I, *per fess azure and gules, over all a silver wall with a silver tower embattled from which rise three jets of smoke* (Reuchl; not in S. or R.). II, *gules a demi-lion gold* (Obersdorffer; not in S. or R.).

Monogram EN (probably David de Necker).

Martin Reuchl, der ungeugten Kinder zu Wienn auf gemeiner Rait Camer

† ~ Suatt für Gott †



15717 Hebraeam Vuerbohrer Vos Galyvius

Superintendent. Genad Dir Gott. Elisabeth Reuchlin, eine Obersdorfferin:
Uxor. Gott Hilft.

f. 29^b. Drawing representing the siege of a fortress.

Zacharias Stainegger Röm. K. M. Diener und Zeugwart zu Wien.

f. 35^b. A Camp scene showing the provisioning of troops and tending the sick.
Jacob Nagl Röm. Kays. Mt. Profianttverwallter zu Raab. 1582.

f. 37^b. Battle against the Turks.

Arms (S. i. 38: R. i. 1012).

Hanns Jacob Hutter von Huttershofen. 1579.

f. 39^b. Drawing representing coursing the hare.

Arms: *silver a double-headed lion sable crowned and ducally gorged gold* (not in R. or S.).

Hanns Caspar von Püreckhamb. 1577.

f. 59^b. Drawing representing a vintage festival (plate XXVII).

Arms: *per fess azure and bendy azure and gold, in chief a gold estoile* (R. ii. 961: and 1 and 4 of S. iv. 189).

Abraham Underholzer von Salzburg. 1571.

f. 83^b. Herr von Cronsfeld. 1570.

Arms: *per chevron azure and gold three crowns counterchanged* (not in R. or S.).

Herr von Cronsfeld is represented full length facing a young lady, evidently his intended; by selecting a scene from the parable of the prodigal son for illumination he probably wanted to give the impression that he had sown his wild oats.

f. 86^b. Drawing representing a tournament. The trappings of the victor's horse are covered with playing cards and a figure of the prodigal son; the illuminated engraving opposite shows the return of the prodigal.

"Gott Hab Lob. 1571."

Arms: *azure a stork proper* (not in R. or S.).

Wilhallm Mair, H. Bairischer Quartiermeister zu diser Zeit.

f. 140^b. Drawing representing the enlistment of Landsknechts (plate XXVIII).

Arms: *per fess sable and barry silver and gules, in chief a crowned lion rampant holding a candlestick gold* (not in R. or S.).

Joseph Styczll, Must(er)schreib(er).

f. 161^b. Drawing representing a hunting scene.

Arms (R. ii. 377: and 1 and 4 of S. i. 214).

Mathias Paller, Augustanus, 1571.

f. 189^b. Drawing representing hawking; monogram M.W.

Arms (R. ii. 351: S. i. 55).

Christoff von Oppell, 1578.

At the end, inside the cover, is an inscription:

15 P. 79.

Abraham Strauss, Organist bei St. Stephans Khirchen in Wien.

"Tugent macht unsterblich."

No. IX (B.M. Bibl. Eg. 1189). The Album of Eberhart ab Eltershofen, which I have mentioned before, is in its original binding, and consists of blank leaves with woodcut borders probably engraved by Jacob Züberlein of Tübingen about 1570; it contains inscriptions, many with the arms, of the owner's friends, chiefly at Tübingen in the years 1571-1597, amongst which

f. 1.

1571.

"Spes mea est Christus."

Arms: *silver a chamois rampant sable crowned gold quartering gules a gold garb, over all on an escutcheon azure a gold lion rampant crowned* (R. i. 966: S. i. 22).

Johannes Adamus Hoffman L. Baro.

Tubingae, 2 Julii 1571.

f. 2.

"Initium sapientiae Domini."

Arms: *bendy of eight gules and silver* (R. ii. 460: S. i. 21).

Andreas Wolfgang Baro von Polhaim.

Tubingae 2 Julii 1571.

f. 15.

Arms (R. i. 839: S. i. 100).

Wilhelm von Grumbach.

No. X (R.C.) The Album of Johann Baptist Buchxor contains autographs and arms of the owner's friends, students, and scholars, mostly German, at Bologna in the years 1571 to 1585, some accompanied by paintings; amongst the entries are:

f. 4.

1571.

D . D . A . N .

Arms: *per fess in chief per pale silver and gules in base azure* (R. ii. 689).

Martinus à Schaumberg et Wolfgangus Christophorus fratres germani.

f. 5.

1571.

F . F . F . F .

Arms: *silver three escallops gules* (R. i. 636: S. i. 103).

Fridericus ab Eyb.



ALBUM OF SEBASTIAN VON STAMPS, VIENNA, 1525-1583

Published by the Society of Antiquaries of London, 1910

f. 7.

1571.

"Quocunq. Ratio."

Arms: *azure on a bend silver three annulets azure* (R. i. 588).

Sebastianus Echterus à Mespelbrun.

f. 9.

"Anno Dñi MDLXXI."

M. A. R. I. A.

Arms: *azure two horns erased gold quartering gules three white eggs* (S. ii. 40: S. iv. 57).Alexander Eurialus (Eyrl) Ambergensis, Comes Palatinus, et J. U. Doctor.¹

¹ As to the privileges of a "Comes Palatinus" or "Hof-Pfalzgraf" I quote here (from Dr. von Hartmann-Franzenshuld's *Deutsche Personen-Medailen des XVI. Jahrhunderts*, Wien, 1873) a document granting the title of "Comes Palatinus" to Friedrich Altstetter, a doctor juris, and setting forth the rights and privileges he is entitled to.

I. "Kann er taugliche Personen zu notaren, öffentlichen Schreibern und Richtern creiren, welche im ganzen h. römischen Reiche Befugniss haben, doch soll er sie anstatt der kaiserlichen Majestät in Gelübde und Eid nehmen."

(He may appoint suitable personages as notaries, public writers and judges, which will be recognized throughout the Holy Roman Empire, but instead of his Imperial Majesty, he himself will have to take their fealty and oath.)

II. "Hat er die Macht, Personen beiderlei Geschlechtes zu legitimiren (Fürsten, Grafen und Freiherren ausgenommen) und sie vom Mackel unehelicher Geburt zu dispensiren."

(He has powers to legitimate persons of both sexes (princes, counts, and barons excepted) and to free them by his dispensation from the ban of illegitimate birth.)

III. "Er mag Vormünder, Curatoren und Pfleger bestätigen, einsetzen und absetzen, Söhne und Töchter adoptiren ('heisst wohl Adoptionen rechtskräftig bestätigen'), Leibeigene erledigen, Minderjährige majorenn sprechen, infamirte Personen restituiren."

(He may confirm or annul the appointment of guardians, trustees, and executors, confirm the adoption of sons and daughters, he may liberate serfs, declare minors to be of age, and rehabilitate such persons as have been declared infamous.)

IV. "Er ist ferner berechtigt, Doctoren und Licentiaten aller Facultäten, der h. Schrift, der Rechte und der Arznei, auch Magister der freien Künste und Baccalarii zu machen und ihnen 'die doctorlichen Zierden und Clainodt' zu verleihen; doch mit der Bedingung, dass der Candidat zuvor, unter Beiziehung dreier anderer Doctoren, 'notdürftiglich examinirt' worden, und sich als würdig erwiesen habe."

(He also has the privilege of granting the title of Doctor and Licentiate of all Faculties, Theology, Law, and Medicine, also that of Master and Bachelor of Arts and granting to them the insignia and crests of Doctors, but with the proviso that they should pass before him and three other Doctors "a superficial examination", and prove themselves worthy of the honour.)

V. "Hat er das Recht, ehrlichen, redlichen Leuten, welche er dessen werth erachtet ('welches wir dann seinem gefallen und beschaidenheit heimbgestellt haben wollen'), erbliche Wappen zu verleihen, und sie somit zu Wappens- und Leihensgenossen zu machen. Doch darf er nicht verleihen: den kaiserlichen und königlichen Adler; nicht die Wappen anderer Fürsten, Grafen und Freiherren; auch nicht irgend eine königliche Krone auf dem Helm, was sich der Kaiser vorbehält."

(He has the right to grant hereditary arms to honest, straightforward persons whom he considers worthy of that honour ("which we leave to his judgement and tact"), and thus to make them companions in coat-armour, but he has no privilege to grant to them the Imperial or Royal Eagle, the arms of other princes, counts, and barons, nor a Royal crown under their crest, a right the Emperor reserves to himself.)

f. 29.

15. "Cadat alea fati" 71.

"Quello chi vuol il Ciel convien chi sia."

Arms (Sibmacher, *Bürg. Wapenbuch IV.* 59 T. 68).

Wolphgangus Hunger. D. Bononiae, 18 Junii.

f. 34.

1572.

In Gloria.

Arms: *sable three crosses paty silver* (R. ii. 724, wrongly as Schönburg, S. i. 122).

Georgius à Schonenburg, Decanus Metropolitanæ Moguntinae.

f. 40.

CIC IC+LXXII.

W.

Arms: quarterly, 1st and 4th, *per pale gold and azure two fleurs-de-lis counter-changed* (Fugger). 2nd, *a woman in full front mantled sable crowned gold supporting in her right hand a mitre gules garnished gold* (Kirchberg). 3rd, *gules three hunting horns silver stringed and garnished gold* (Weissenhorn) (R. i. 724: S. iii. 27).

Maximilianus Fuggerus.

f. 59.

15+73. G. G. G.

"Zeitt und Weil ist ungleich."

Arms (R. i. 854: S. i. 25).

Albrecht Herr zu Gumpenberg, Freyherr.

f. 64.

1577.

Arms: *gold three leopards sable* (S. i. 19).

Christoff des heil. Röm. Reichs Erbtruchsess freyherr zu Waldtpurgh zu fl. Dt. Ertzhertzog Ferdinand zu Osterreich Rhatt und Camerer.

No. XI (R.C.) Fifteen leaves, inlaid and bound, of the Albums of Bartholomeus and Johannes Welser of Augsburg, containing the autographs and arms of the owner's friends and fellow students at Augsburg, Laugingen, Tübingen, Bourges, and Paris in the years 1574 to 1580. Amongst the entries are:

f. 2.

"Sors omnia versat."

Arms: *silver on a mount a trefoil slipped sable* (R. ii. 303: S. i. 209) (Neidhart).

Matthaeus Daniel Nithard Aug:(ustanus) Die 3 Augusti Anno CIC IC XVIIIC.

f. 3.

1575.

"In Deo solo fiducia mea."

"Spes mea est Christus."

Arms: *per pale silver and gules a fleur-de-lis counterchanged* (R. ii. 1067: S. i. 207).

Melchior Welser, Tübingae 6 Aug.

f. 7.

V. V. V. L.

Arms: *per bend sinister gold and sable a stag rampant counterchanged* (R.ii.901 : S. i. 217).

Marcus Thenn, . . . Anno 1577.

No. XII (B.M. Bibl. Eg. 1194). The Album of Johann von Thau, sometime "Bürgermeister" of Vienna, consists of two printed books with woodcut illustrations by Virgil Solis, namely: *Biblische figuren des alten Testaments ganz kunstlich gerissen Durch den weltbrümpften Virgilium Solis, Maler und Kunststecher zu Nürnberg, 1565. Gedruckt zu Franckfurt am Mayn durch Johannem Wolffium* (2 vols.) and *Johan Posthii Germershemii Tetrasticha in Ovidii Metam (orpho-seon) Lib. XV quibus accesserunt Vergilii Solis figurae elegantes et iam primum in lucem editae: Schöne figuren, etc., MDLXIX*. He had them interleaved and bound, his arms being impressed on the outside cover. This Album contains inscriptions and beautifully painted shields of arms, some accompanied by full-length portraits, and amongst its contributors we meet abbots and other ecclesiastical dignitaries, judges and officials, soldiers and patricians, principally of Vienna, in the years 1578-1598. At a later period leaves from another Album have been inserted into the second book, but they do not concern us here.

On f. 10 is a coloured woodcut with the arms of Johann von Thau: *silver three estoiles gules impaling sable a gold griffin quartering per fess gold and sable a phoenix on a pyre in flames counterchanged*.

Thau's arms are not mentioned by Sibmacher or Rietstap; the arms blazoned on the 1st and 4th quarters are recorded on a struck medal (Bergmann, ii. 212, plate xx, no. 101), which must have been made after 23rd January, 1562, when he received the title of Imperial Councillor, and before 25th July, 1564, the date of death of Ferdinand I; but there is no record for the 2nd and 3rd quarters, which, very curiously, represent the arms of Georg Prantstetter, several times "Bürgermeister" of Vienna, who died without leaving issue on the 6th May, 1574. Neither Thau nor his first or second wife were related to Prantstetter, and it must be left to further research to ascertain if, and how, he obtained that augmentation.

Johann von Thau was a judge of the city of Vienna ("Stadtrichter") in 1562-1564, then "Bürgermeister" in the years 1570, 1571, 1575, 1578, 1579, 1582, 1583, and last in 1588 and 1589.

Amongst the entries are the following:

f. 14^b. Full-page painting (plate XXIX. 1) with the arms of the monastery of Heiligenkreuz: *gold on a cross gules a right hand in benediction vert* (S. Klöster,

p. 28) quartering Molitor: *gules three silver poplar leaves terminating in crosslets in bend.*

"Udalricus Tricesimus quartus Abbas Monasterii Sanctae Crucis in Austria."
(Ulrich II. Molitor was Abbot of Heiligenkreuz from 1558 to 1585.)

f. 23. Full-page painting (plate XXIX. 2) of the arms of the monastery of Lilienfeld and of its abbot Lorenz II. Reiss. Under mitre and crozier two shields accolé:

1. *azure three gold fleurs-de-lis in pale* (monastery of Lilienfeld). S. *Klöster*, p. 59, blazons *azure three silver fleurs-de-lis 2 and 1.*

2. *azure on a mount silver a crowned lion rampant gold holding a sceptre* (which is Reiss, not mentioned in S. or R.).

"Laurentius Abbas Monasterii Campililiorum in Austria Ordinis Cisterciensium MDXCIII. 6. febr."

(Lorenz II. Reiss was Abbot of Lilienfeld from 1587 to 1601.)

f. 58. Full-page painting (plate XXX. 1).

Arms: *gules a hat azure turned-up ermine* (R. i. 1002: S. i. 38).

Christoff Hütstockher, 1579.

f. 77. A full-page painting of the arms of the Scots Monastery at Vienna and of its abbot, two shields accolé:

1. *azure on a mount vert a book with its cover hanging from it gules garnished gold, over all a golden crozier in bend* (Scots Monastery).

2. *azure a gold fleur-de-lis between two stags' horns sable* (Schretel).

"Joan. Abt zu Schotten, Rom. Ky Mait Radt, Anno 1581."

(Johann IX. Schretel was abbot from 1562 to 1583.)

The monastery of Our Lady, called the Scots Monastery, was founded in 1158 by Henry, Duke of Austria, for Celtic monks of the order of St. Benedict, and up to 1418 only Scottish, Irish, and Welsh monks were admitted to it; owing to some difference as to the admission of other nationalities, they retired in 1418 to the Scots Monastery at Ratisbon. The present arms of the monastery, granted in 1700 by Leopold I, differ from those shown here, being: *azure on a mount vert a gold crozier in pale, over all a book gules garnished gold* (S. *Klöster*, p. 90, T. 101).

f. 118^b. Full-page painting (plate XXX. 2) with portrait.

"15 - Gott Verthraue ich - 86."

Arms: *per fess gold and sable an eagle counterchanged quartering gules a fess silver, over the fess in chief a demi-stag issuant proper* (R. ii. 1059: S. iii. 67).

"Georg Ludwig Wehe."

den 8 Tag Januarii Anno 86.



1



2

No. XIII (B.M. Add. 17813). The Album of Emeran Lerchenfelder, of Ratisbon, contains inscriptions, some with miniatures, others with the arms of his relatives, friends, and fellow students at Ratisbon, Amberg, Jena, Brunswick, and other places in the years 1579-1623. The miniatures and arms executed at Brunswick are rather poor.

On the front page is the inscription, "Genealogiae seu Amicitiae liber Emerani Lerchenfelder Ratisbonensis": and on

f. 8^b, the early arms of Haymeran (Emeran) Lerchenfelder: *gules on a silver chevron a lark rising proper*.

f. 9. The augmented arms quarterly 1 and 4: *gules on a silver chevron a lark rising proper*. 2 and 3: *silver a lion rampant crowned gold* (S. v. 225 and R. ii. 53, blazon 2 and 3: *silver a lion rampant gold*).

f. 11. 16-07 H. A. D. T. I.
"Vertu surpasse Richesse."
Ludtwig Landgrave zu Hessen.

16-07.
V. T. D. M. D. "En Dieu mon esperance."
Philippe Landgrave d'Hessen.

f. 13. An engraved portrait.
Mauritius Comes d'Nassau. Ao 1595.

f. 15. Arms of Juliers and Cleve.
Joannes Dei Gracia Dux Juliae, Cliviae et Montium Comes Marchiae, etc.

f. 16. Arms of Juliers and Cleve.
1595.
"En Dieu me fie."
Sibille duchesse de Juliers, etc.

f. 21^b. "Vel Tandem Terminus esto."
Arms granted 1557 (R. i. 712).
Joh. Wolf Freymond zu Mulfeldt und Hersching.

f. 22. Engraved portrait: Joan Wolf FREYMAN in Randeck, etc., MDXCVI.
aet. L.

f. 23. Engraved arms; augmentation granted 24 Aug. 1596 (R. i. 712).
IOHAN WOLF FREYMAN VON VD AUF HOCHEN RANDECK . . . UND REICHS HOF:
VICE: CAZELER. AN. 1596.

f. 27^b. Arms: *gold a bend gules quartering chequy gules and silver* (Baden), *on a chief gules a silver Maltese cross*.

Underneath are three smaller shields of arms of his officials, Tschernin, Riedesel, and Ungemach.

- f. 28. "Alles verthan vor meinen endt
Macht mir ein richtiges testament."
Johann Carel Margraff zu Baden,
ritter zu Malta.

(This man, b. 1572, fell in the wars of the Netherlands in 1599.)

No. XIV (B.M. Bibl. Eg. 1198). The Album of Joannes Molitor of Nuremberg contains inscriptions, some with shields of arms, of his fellow students and professors at Altdorf in 1581-1583 and 1590, Heidelberg 1586-1588, and at Ingolstadt in 1591. Amongst them are:

- f. 49^b and 50. Woodcuts: "Insignia Melissi" by Tobias Stimmer.
f. 51^b. Woodcut portrait by Tobias Stimmer (plate XXXI. 1).
"Effigies Pauli Melissi Franci P(oetae) L(aureati) An. Aeta. xxx.
"P. Melissus, Comes Palats. Eq., civis Rom. scribt. Kalendis Quinctilib.
Ao. MDLXXXI. Noribergae."

(Paul Sched, called Melissus, born 1539 at Melrichstadt in Franconia (the son of Balthasar Sched and Ottilia Melissa), studied at Erfurt and Jena, was ennobled and appointed Poet Laureate at Vienna, and later at Padua, Comes palatinus, Eques Auratus, and Civis romanus. He also travelled in England, and on his return received the appointment of librarian at Heidelberg, where he died in 1602.)

- f. 61. Arms (R. i. 768). Andreas Geuder ab Herolzberg, Altdorf 3 Aug. 1583.

- f. 62. "Non est Mortale quod Opto."
Jacobus le Seigneur, Gallus.
17 Martii 1591. Ingolstadii.

- f. 68. Arms (R. ii. 571). Philippus Rieter von Kornburg.
Altdorfii Noric: 4 Martii 1586.

- f. 70^b. "Avec le temps et ma peine."
Heinricus Bachhoffen Echt.
Altdorphii Norico, 2 Sept. 1590.

No. XV (B.M. Bibl. Eg. 1199). The Album of Sebastian Záh of Augsburg, in its original binding, with the initials S. Z. A. and dated 1587, contains inscriptions, some with shields of arms and paintings, of his friends and fellow students at Augsburg, Pisa, Florence, Rome, Prague, and other places in the years 1581 to 1600.

He was probably a son of the Sebastian Záh who on 23rd July, 1560, married Susanna, daughter of Ottmar Schlecht and widow of Lienhart Eggelhof, and



1



2

ALBUM OF JOHANN VON THAU, 1578-1598
Published by the Society of Antiquaries of London, 1910

who obtained the nobility of the empire with an augmentation of his coat armour on the 27th April, 1581. Amongst the inscriptions are the following:

f. 5. "Hubertinus Albitius Patricius florentinus . . . manu propria scripsit. Pisis. calendis februarii 1592."

f. 5^b.

"Ars natura supplet."

Arms (not in R. or S.).

"Joh. Pietro Francavilla scultoro belgis . . . in Fiorenza questo dio xxix di Ottobre 1592."

(This Joh. Pietro Francavilla, born 1548 at Cambray, was, according to Nagler, a pupil of Giovanni da Bologna.)

f. 6 (fig. 2).

"Monsgr Sebastiani Zeck.

Pour la longa amities q. je auous eulx ensamble, moi Jehan bolongna fia-

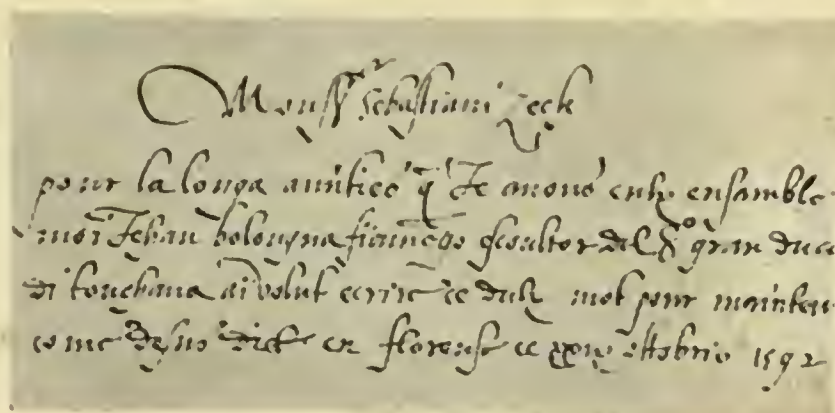


Fig. 2. Album of Sebastian Záh.

mêgo escoultor del S^e gran Duca di Touchana ai volut ecrire ce dulx mot pour maintenir es me desno. Dict en Florense ce xxix octobris 1592."

Although this is neither good French nor Italian, it is probably the most noteworthy inscription of the whole book.

f. 10.

"Die Welt ist ein Gaggelsack."

Arms: *per fess silver and gules three roses counterchanged* (not in R. or S.).

"Veitt Conratt Schwartz den letsten October ão 1581 zu Ehren seines lieben Veters Sebastian Zähen des jüngern dises hieherr gestellt hatt."

f. 11. A miniature.

Josias Seuter Augustanus.

f. 12 and ff. The arms and inscriptions of Augsburgers, viz. Johann Ulrich Bechler, Christoph Amann, Simon Fabricius, Johann Christoph Hörmann, Paulus Manlich, Balthasar Ligsaltz, Abraham Mannlich, Tobias Wind, and Johann Christoph Jenisch.

f. 34. "Audentes Deus ipse iuuat."

Petrus Kohary, Capitaneus Equitum et peditum quondam Illustri Dni. Nicolai Palffi. 12 Dec. 1600.

f. 35. A beautiful miniature; by its side the arms: *azure a fess between three gold estoiles.*

Marcus Bechlerus, Augustanus.
2 Martii. Ao. 87.

No. XVI (B.M. Bibl. Eg. 1553). The Album of Caspar Fraisch, "Küchenmeister," "Haus und Küchenmeister," of the Princes Maximilian, Philip, and Ferdinand of Bavaria (sons of Wilhelm V, Duke of Bavaria), contains inscriptions of princes, nobles, and others, some with shields of arms and miniatures, at Ingolstadt in the years 1588 to 1612. Amongst the entries are the following:

f. 1. "15 – Corona Legitime Certantibus. – 90."

Arms of Austria.

Ferdinandus Archid. Austriae.

(Ferdinand, Archduke of Austria, b. 1578, became King of Bohemia 1617, of Hungary 1618, Emperor, as Ferdinand II, 1619, †1637.)

f. 2. 15 † 95.
"OMNIA."

"Ernestus Elector Coloniensis, Bavariae Dux."

(Ernest son of Albert V, Duke of Bavaria, b. 1554, became Bishop of Freysing 1565, Hildesheim 1573, Liège 1581, Archbishop of Cologne 1583, †1612.)

f. 3. 1595.
"R . M . H . N . D . W ."

Fridericus Elector Palatinus etc.

(Frederick IV, b. 1574, Elector 1583, †1610.)

f. 4. 15 – Dominus Virtutum nobileum – 88
Arms of Bavaria.

Maximilianus Bavariae Princeps.

(Maximilian, b. 1573, became Duke of Bavaria 1597 and Elector 1623, †1651.)

f. 8. Arms: quarterly: 1st and 4th *gules a bend silver* (Bishopric of Ratisbon), 2nd Palatinate, 3rd Bavaria.

Phil. Eps. Ratisbonen. Ingolstadii.

(Philipp, b. 1576, became Bishop of Ratisbon 1579, Cardinal 1597, †1598.)

f. 9. 1590.

Arms: Palatinate quartering Bavaria.

Ferdinandus Com. Palat Rheni Bavariae Dux.

(Ferdinand, b. 1577, became Bishop of Liège, Münster, and Hildesheim, and Archbishop of Cologne 1612, Bishop of Paderborn 1619, †1650.)

f. 11. "Carolus Card^{ali} a Lotharingia, Episcopus Argentinensis et Metensis."
(Charles, son of Charles II, Duke of Lorraine, became Cardinal in 1588,
†1607.)

f. 17. "Noctes enumeravi mihi laboriosas."

Julius Eps. Wirceb.

(Julius Echter von Mespelbrunn became Bishop of Würzburg in 1573, †1617.)

f. 18. "Sana & Sanabor."

Arms: *gules an eagle silver quartering gules two bars wavy silver.*

Joannes Eps Tergestin.

(Joannes (VIII) Bogorinus became Bishop of Trieste 1595, †1597.)

f. 19. Arms: *silver a cross paty sable* (Teutonic Order) quartering *gules an ibex rampant proper* (Bobenhausen), *over all on a cross paty sable another flory gold; on a gold inescutcheon an eagle sable* (Master of the Teutonic Order) (S. v. 29).

Heinricus Dei gratia Administrator magni Magistratus Borussiae et Ordinis Theutonici per Germaniam Italiamq. Magister.

(Heinrich (V) von Bobenhausen became Grand-master of the Teutonic Order in 1572, resigned in 1590, †1595.)

f. 30. Arms of Fugger, Christophorus Fugger, 1588.

f. 31. " " Jacobus Fugger, 1589.

f. 32. " " Constantinus Fugger.

f. 32^b. " " (Georgius?) Fugger, 1595.

f. 46. " " Joannes et Hieronymus Fugger, frès germani, 1594.

f. 47. " " Wilhelmus Fugger, 1597.

f. 48. " " Christoph, Franciscus und Ferdinand Fugger
Gebrüder, 1597.

f. 73. 1595. S. D. W.

Arms: *azure two gold arrows in saltire between two silver estoiles one in chief one in base.*

Gregori Orainski Deuffl des Herzog in Beirn Zwerg.

f. 115. 1594.

Unverhofft kombt off.

Arms: *gules a boar rampant sable* (not in R. or S.).

Meinem gunstigen unnd vertrauten lieben Herrn Bruder Casparn Fraissleben (*sic*) Ir. F. D. Dreyer jungen Fürsten Inn Bayern etc. Hauss und Küchenmeister Hab ich Benedict Schweindl Hochgedachter der Zwayen Geistlichen Fürsten Camerdiener zur guetter Gedechnuss geschrieben in Jngolstadt den 16 November.

No. XVII (B.M. Add. 19065). The Album of Timann Cock of Bremen contains inscriptions of the owner's friends and fellow students and of learned men at Bremen, Leyden, Helmstadt, the Hague, and other places in 1589 to 1595. On f. 2 is the owner's inscription:

"Thesaurus amicorum
Timaenni Cocci Bremensis."

Mense Aug. Ao. 1589.

And the following are of particular interest:

f. 15. En Tabulis inscribo tuis, ANTE OMNIA MUSAE
Sollene id Dousae SYMBOLON esse scias.
Tu fidei haec cape signa meae: nam quid pedis ultra
Sum quidcumq. tuū est: caetera nec mea sunt.

J. Dousa scribebam.

Hagae-comitis A MDXCIII Cal. Sextil.

(J. Dousa, born 1545, studied at Louvain, Douay, and Paris; William of Orange made him Governor of Leyden, which town he defended against the Spaniards. He was appointed Keeper of the Archives of the States-General, chief librarian of Leyden, 1591, elected to the States-General, and died in 1604.)

f. 15^b. An inscription.

Janus Dousa filius.

(Born 1572, poet, philosopher, mathematician; he was appointed in 1591 librarian at Leyden, †1597.)

f. 43. "Nihil utile quod non honestum."
"Veras igitur stabilesq. acquirere divitias,
animi vere generosi opus putato."

Joannes Dee, Anglus.

Bremae 14 novebr. Ao. 1589.

No. XVIII (R.C.). Twenty leaves, mostly vellum, of the Album of Heinrich Pilgram of Nuremberg, containing miniatures and inscriptions with the arms of his friends at Nuremberg and Vienna in the years 1589 to 1596. Both miniatures and arms are very finely painted. Among them are the following:

"Gloria Virtutis Premium."

Arms: *per fess sable and gold over all a mermaid proper crowned and vested gules quartering per pale gules and gold a fleur-de-lis counterchanged over all on an escutcheon silver a bull's head proper* (R. ii. 571: S. i. 205).

Carl Rietter von Kornburg.

Wien, den 24 februar 1590.

Miniature representing full-length figures of a lady and of a man holding a gun; signed with a monogram **A**, probably that of Jost Amman.

No. XIX (R.C.). 110 leaves of finely executed miniatures which at one time formed the Album Amicorum of a soldier of some standing, who got his comrades in arms at the siege of Gran to enter their mottoes, arms, and names on the back of some of his miniatures. These entries are all dated August and September, 1595: "Im Feldlager vor Gran," "Zu Gran im Feldlager," "Vor Gran," "Zu Gran," "Unter Gran."

Gran on the Danube, a fortress in Hungary, was conquered by the Turks in 1543 under Soliman II; in 1574 the imperial forces under the Archduke Matthias tried to retake it, but failed. In 1595 Charles, Prince of Mansfeld, again laid siege to it, and defeated the Turks who had come to its succour. Mansfeld died on the 14th August, 1595, but the Archduke Matthias continued the siege and forced the Turks to surrender the town in the same year.

Some of the owner's friends, who entered their names, were:

Johann von Althan.

Gotthard von Starhemberg.

Ludwig von Starhemberg.

Paul Jacob von Starhemberg.

Hans David Harsdorffer and Dietrich Schiffler "Landtsknecht Fendrich".

Nicholaus Hochhauser von Hochhausen with the motto: "Allen die mich kennen, den geb Gott, was sie mir gönnen."

Christoph Hochhauser von Hochhausen with the motto: "Wer für mir redet Guttes und hinter mir Arges, so kom der Teufel und brech ihm den Hals."

Sigmundt von Zedlitz with the motto: "Ach Gott lass mich erwerben, Gar Ehrlich Leben und schlig sterben." This last entry is on the reverse of a miniature with the inscription "Reina di Angletterre", but it bears very little resemblance to Queen Elizabeth.

These miniatures are very interesting, representing English, French, and Italian personages, high dignitaries of the church and law, soldiers, ladies of high and low estate, amongst the latter a "Ruffiana" or procuress; then there are representations of different occupations, modes of travelling, the Venetian Buc-centaur, galleys and gondolas, etc.

No. XX (R.C.). The Album of Johann Gastel of Augsburg, a student, then a Doctor of Medicine, with inscriptions, miniatures, and arms of his friends and fellow students at Augsburg, Dillingen, Venice, Padua, Florence, Rome, and Salzburg in the years 1595 to 1615. The miniatures represent dignitaries of Venice and of the University of Padua, portraits, and allegorical subjects. Some of the entries are:

f. 3. "16- Dabit Deus his quoque finem -06."

Arms (R. i. 961: S. i. 214).

Philipp' Hochstetter, Augustanus.

f. 6. "15- Vive memor socii quem tibi iunxit amor. -99."

Arms (R. ii. 1113: S. i. 26).

Adamus Baro à Wolckenstain. 22 Martii Anno 99.

f. 41. "Tout vient à point qui peut attendre."

Arms (R. i. 724: S. i. 19).

Severinus et Joan: Jacobus Fuggeri Barones in Kirchberg et Weissenhorn
amicitiae ergo haec pingi curarunt Domine Gastellio. Die 17 Januarii 1606.

f. 62^b. "Amor oia Vincit."

Miniature; a knight holding a shield with arms: *gold three wolves' snares inverted sable in pale* (R. ii. 820: S. i. 111).

Jo. Conradus à Stain. Anno 1598 30 Maii.

f. 69^b. "15- Virtute nihil praestantius. -99."

Miniature; a knight on horseback holding shield with arms: *silver a fess gules between two leopards azure* (R. ii. 695: S. i. 115).

Johannes Rudolphus Schenck von Stauffenberg.

f. 81^b. Miniature portrait: "Vera effigies Melchioris v. Stein aetatis suae
13. die Februarii 26 Ano. 97."

f. 82. "Spes mea Christus" 1597.

Arms (R. ii. 820: S. i. 111).

Melchior v. Stein haec sua insignia amoris ergo pingi curavit.

f. 107^b. Miniature: a knight on horseback holding a flag with the arms of
Brahe (R. i. 282); the same on the horse's trappings.

f. 108. 16- "Mas honra que vide." -01.

Arms: *sable a pale silver* (R. i. 282).

Otto Brahe A. F. Danus J. V. A. J. Cons.

Padua 23 Junii.

No. XXI (B.M. Bibl. Eg. 1220). There are only a few arms in the Album of
Johannes Opsimathes of Moravia, but many interesting inscriptions of royal
and princely persons, English prelates and statesmen, of professors and other
learned men, collected at Paris, London, Geneva, Leyden, Marburg, Altdorf,
Wittenberg, and other places in the years 1598-1620.

Amongst the signatories are:

f. 1. 1616.

"Si vis omnia subicere subice te rationi."

Carolus P.

f. 2. 1607.

"r. v. r. d. b. m."

Friedrich Pfaltzgrave.

(Afterwards the Elector, who married in 1613 the Princess Elisabeth and in 1619 was elected King of Bohemia.)

f. 6. "Theatrum pietatis conscientia."

Jacobus (Montague) Bathoniensis et Wellensis (Episcopus).

R. Lincoln(iensis) (Richard Neile, Bishop of Lincoln).

f. 21. Paulus Merula (the great jurist and Professor of History at Leyden, also librarian of that university; born at Dortrecht 1558, died at Rostock in 1607).

f. 30. Theodorus Beza, Geneva 1601 die Januarii 7.

(The well-known writer and Calvinist preacher at Geneva who wrote the history of the reformed church in France from 1521 to 1563, the *Life of Calvin*, and many other books; he died in 1605.)

f. 43. "Virtute et Genio."

Carolus Clusius Atrebas.

Lugduni in Batavis. iv Idus Maius 1600.

(Carolus Clusius (Charles de l'Ecluse), born at Arras 1526, a botanist and well-known writer on the subject, was appointed by Maximilian II. and Rudolph II. Director of the Imperial Gardens, lived from 1587-1593 at Frankfort on-the-Main, then became Professor of Botany at Leyden, where he died in 1609.)

f. 52. Stephanus Lesurius, Eques Auratus.

(Sir Stephen Lessieur, English ambassador to the emperor.)

f. 68. Henricus Monantholus Medicus et Mathematicarum Professor Regius.

Lutetiae. 24. Julii, Anno 1600.

"Coelo restat iter, coelo tentabimus ire."

(Henry Monantholus (Monantheuil), b. at Rheims in 1536, became Professor of Medicine and of Mathematics at Paris, then Dean of the Medical Faculty; his publications on mathematical and other subjects are numerous. †1606.)

f. 80. Johannes Deodatus (Diodati, b. at Lucca, 1576, became Professor of Theology and pastor of the French and Italian churches at Geneva; published an Italian translation of the Bible and the first French translation of the History of the Council of Trent, etc.; †1649).

f. 101. 1616.

"Hic nihil omni ex parte beatum."

Thomas Moravius Scot(us).

Sereniss. Principis, regis Angliae filii praefectus.

Londini in Anglia, Julii 17.

No. XXII (R.C.). A collection of 63 leaves with woodcut borders, which formed the Album of Philipp von Brandt, and contain the inscriptions, some with

the arms of his friends, who were ecclesiastics, officials, and soldiers at Tübingen, Neuberg on the Danube, Sulzbach, Coblenz, and Ratisbon in the years 1600-1630. Some of the entries are:

- f. 1. 1600.
 "Tendit ad ardua Virtus."—"Ich schweige und gedencke."
 Arms (R. ii. 1051: S. i. 32).
 Joannes Georgius Liber Baro à Wartenberg . . . Tübingae 22 April:
- f. 9. 1601.
 "W . G . W . W ." (Wills Gott Wer Wends.)
 Arms (R. ii. 101: S. i. 112).
 Caspar Schilling von Cannstadt . . . Neuburg a. d. Donau.
- f. 13. 1601.
 "Gott Trau, uff Niemandt Bau."
 Arms (R. ii. 275: S. i. 206).
 K. H. Muffl NE. F. Pfalzg: Hoffmeister zu friedrichsburghk.
- f. 59. den 12 Decembris A° 1630.
 "Ein frischer und ein frölicher Muth
 ist besser den viel Geldt unnd Gutt."
 Friederich von und zum Egloffstein.
Note in the owner's hand: Gnadt Im Gott
 blieb vor Nördling
 A° 1634.

No. XXIII (R.C.). Ernst Gross von Trockau, called Pfersfelder, the owner of this Album, who became at an early age Canon of Bamberg in 1590 and of Würzburg in 1611, died at Würzburg in 1628. His Album, interleaved with some engravings, contains autograph inscriptions and the arms of his fellow students at Würzburg in the years 1602-1604, at Orleans 1604-1606, and of some of his fellow canons and other high ecclesiastical dignitaries at Bamberg and Würzburg in the years 1602 to 1626. Amongst the entries are:

- f. 2. 1604.
 "Domine nolo vivere, nisi tecum moriar."
 Arms: under an imperial crown two shields accolé.
1. *Gold a lion rampant to the sinister sable debruised by a bend sinister silver* (Bishopric of Bamberg). 2. *Gules a goat's head couped silver* (Gebaßattel).
 (The imperial crown alludes to the founder of the bishopric, the Emperor Henry II.)
- Joan: Philip: Eps. Bamberg.
 (Johann Philipp von Gebaßattel became Prince Bishop of Bamberg 4th February, 1599, and died in 1609.)

f. 3. "16. Dominus Providebit. 11."

Arms (R. i. 1126: S. i. 101).

Hector à Kotzau Cathedralis Ecc̃ae Bambergensis Decanus nec non Herbipolensis Canonicus, Praepositus ad S. Jacobum prope Bambergam, Sanctissimi Domini nostri Pauli Quinti conciliarius et prothonotarius Apostolicus.

f. 4. 1612.

Arms (R. ii. 863: S. i. 103).

Joh. X̃phorus Neustetter dictus Sturmer Praepositus Bambergensis et Custos Moguntini.

f. 5. "Les choses plus difficiles, deviennēt fort faciles, en travaillant."

Arms (R. ii. 533: S. i. 110).

Hanns Michael und Albrecht Ernest von Rechberg von Hohen Rechberg, Gebrueder.

In Orleans den 31 May A°. 1605.

f. 17. "Ante opus considera."

Arms (R. ii. 773: S. i. 104).

Theodorus à Gich. Ann. 1612.

f. 21. "Dulcia non meminit q. non gustavit amara."

Arms (R. ii. 536: S. i. 113).

Wolf Hendrich von Redwitz, Dombherr.

f. 29. "In necessitate, verus probatus amicus."

An engraving, probably by Johann Sibmacher, with the arms of Kolowrat-Krakowski (R. i. 1116).

Wladislaus Abdon Bezdrutzki a Kolowrat, Baro Bohemus A°. 1608. 26 Septemb:

f. 80. "Pulchra est concordia cordis et oris."

Arms (R. i. 599: S. i. 103).

Philippus Adolphus ab Ernberg 16 Junii A°. 1605. Aureliis.

(This man became Prince Bishop of Würzburg in 1623. †1631).

No. XXIV (B.M. Bibl. Eg. 1234). A copy of *Francisci Sanctii Brocensis comment(arii) in Andreae Alciati Emblemata* published at Lyons by Guillaume Roville in 1573, interleaved for Nicolaus Claus of Skara in Sweden, contains inscriptions of learned men and the owner's fellow students at German universities and other towns in 1605 to 1628. The most interesting is that of Johannes Kepler, the astronomer.

f. 242^b. "Nemo cadit, recubans, terrae de cespite planae.

O curas hominum, o quanta est in rebus inane."

Joannes Keplerus Sa^r C. Mtis. Rudolphi II Mathematicus scripsi Lincii. Id. Jun. Anno. Christianorum. MDCXI.

No. XXV. In the Album of Matheus Schmoll of Ratisbon, 1628, left to the library of our Society by the late Sir Wollaston Franks, is the following inscription by Johannes Kepler:

f. 136. "O curas hominum, o quantum est in rebus inane;
Si nisi per Mundum, fuga Mundi non patet usquam."

Joannes Keplerus Imp. Caes. . . . Ferdinandi II . . . Austriae Super-Anisanac Mathematicus, scripsi Ratisbonae Nonis Decembris Anno MDXXVI.

No. XXVI (B.M. Bibl. Eg. 1238). The Album of Paul Groe of Nuremberg

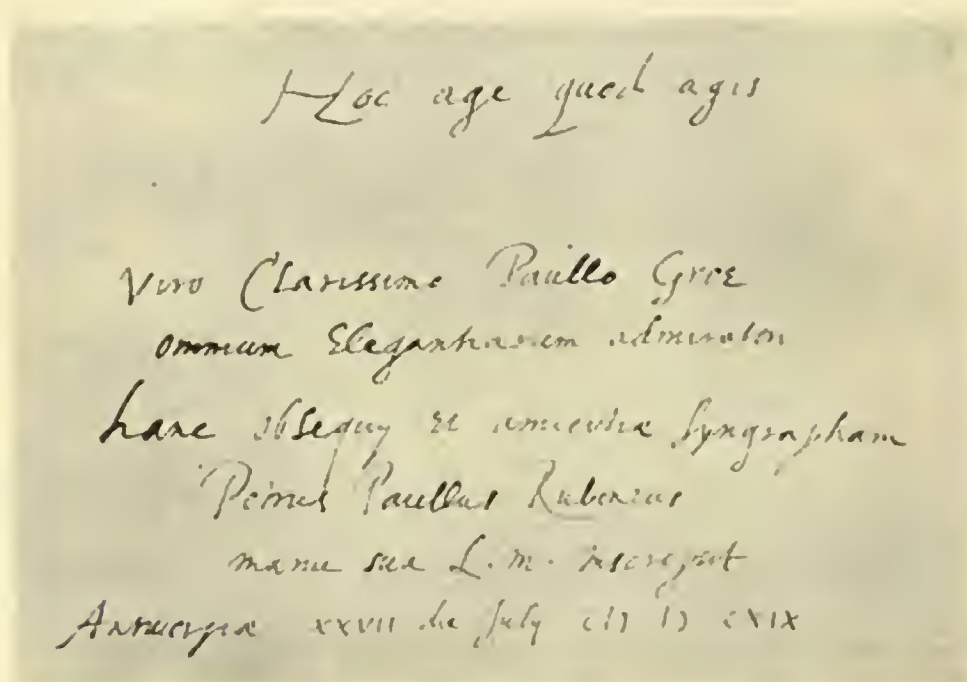


Fig. 3. Album of Paul Groe.

contains autograph inscriptions of learned men, professors, and the owner's fellow students and travelling acquaintances, dated at Altdorf, Jena, Leyden, Louvain, Antwerp, London, Paris, and other places in the years 1606-1620.

Amongst them are the following:

ff. 2 and 2^b. Johann Ernst der Jünger, Friedrich, Wilhelm, Albrecht, Johann Friedrich, Ernst, Friedrich Wilhelm, and Bernhard, Dukes of Saxony, sons of Johann, Duke of Saxe-Weimar.

f. 8 (fig. 3). "Hoc age quod agis."

Viro Clarissimo Paulo Groe omnium elegantiarum admiratori hanc obsequii et amicitiae Syngrapham

Petrus Paullus Rubenius
 manu sua L. M. Inscriptis
 Antwerpiae xxvii die Julii mdcxix.

f. 9. Joannes Meursius.

f. 28 (fig. 4). "Pondero non numero."

Guilielmus Camdenus Clarenceux Rex Armorū in Anglia ad amicitiae
 Aram

P. 1619.

No. XXVII (B.M. Bibl. Eg. 1239). The Album of Otto Heinrich, Liber Baro in Herberstein, contains inscriptions of statesmen, professors, and other learned men at the Hague, Paris, Leyden, London, Oxford, Cambridge, Edin-

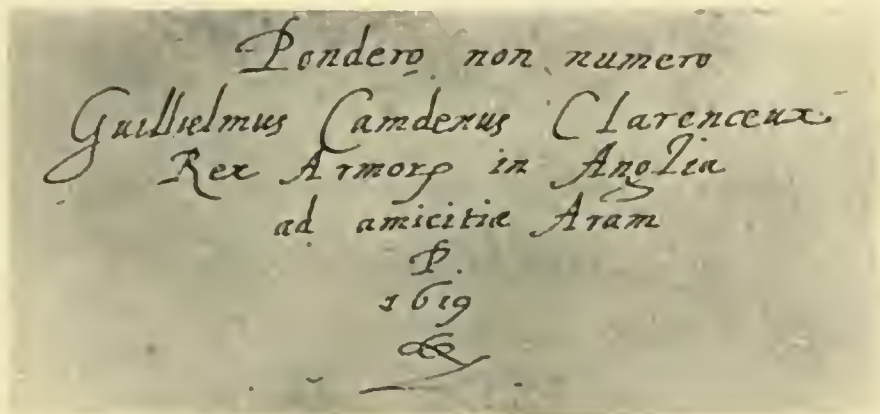


Fig. 4. Album of Paul Groe.

burgh, Dublin, and other places in the years 1607 to 1610, amongst which are the following:

f. 1. A Greek inscription.

Ego Jac. Aug. Thuanus . . . scripsi Lutetiae Parisiorum, 9 Oct. 1610.

(The great historian and book collector, †1617.)

f. 4. Dominus Jacobus Hamiltonus, Comes Abercorniae.—Robertus Hamiltonus.

f. 5. "Modestia magnes amor."

Rodolphus Winwood.

Hagae Comitibus 1608.

(Sir Ralph Winwood, English Ambassador to the States-General and afterwards Secretary of State.)

THE ALBUM AMICORUM

- f. 6. "Virtus vera nobilitat, et qui genus iactat aliena laudat."

Ri. Spencer.

Regis Angliae Legatus in Belgio.
Haghae Comitibus, 25 Septemb: 1608.

- f. 10. Dutch inscription.

Cornelis Drebbel.

van Almar. Aⁿ 1610. den 7 Juni—in London.

(Cornelis Drebbel, born at Almar in 1572, a great scientist, mathematician, and inventor, came to England about 1604. He constructed and presented to James I. a machine for producing perpetual motion, which is described and illustrated in *A Dialogue Philosophicall* by Thomas Tymme. Besides many optical and mathematical instruments, he constructed a submarine boat which travelled under the water from Westminster to Greenwich. Drebbel died in London in 1634.)

- f. 13.

"Virtute et Genio."

Carolus Clusius adscribendam.
Lugdunis in Batavis 5 febr. 1609.

- f. 13.

Melchior Sebizius, Argentorati 19 Dec. 1607.

- f. 22.

Isaacus Casaubonus.
Lutetiae Parisiorum Oct. 1610.

- f. 42.

"Virtuti Omnia Parent."
Franciscus Swertius F., Antwerpianus.
1609. xvi. Maij.
Antwerpiae Ambinaritorum.

- f. 54.

"Man that is Regenerate, never can bee degenerate."
Anthonius Stafforde, Weschestriae.
27 Augusti, anno Salutis 1610.

No. XXVIII (B.M. Bibl. Eg. 1242). An interesting Album is that of Jonas Kröschl of Dresden, a court- and field-trumpeter of the Elector of Mainz, containing chiefly autograph inscriptions of other field-trumpeters in the service of the Emperor, the Duke of Saxe-Eisenach, the Elector Palatine, the Prince of Anhalt, the Margrave of Brandenburg-Onolzbach and of Count Hohenlohe in the years 1608 to 1611. Some of the inscriptions are:

- f. 2.

"Mit Freiden daran und mit Glück davon."

Arms: *silver a plume azure gold and gules* (not in R. or S.).

Jonas Kröschl von Dresden. Veld Tromet gehöret dieses Stambuch 1608,
20 Oct.

f. 4. "Glück und Lieb, Stild khein Dieb."

Arms: *per fess gules and gold a leaping stag proper* (not in R. or S.).

Dieses hab ich Caspar Wildt Trometer jetziger Zeit, Churf. Mentz. Musicus dem Ehrenhafften Jonas Kröschl Chf. M. Hoff und Veld Trometer zu guten Gedechnuss geschrieben. Actum den 18 November 1608.

f. 5. "Wo Trometter da Freudt, Wo Mussicanten da Neidt, Wo Jungfraun da Lust, Wo Schust und Schneid da Hunger undt Durst."

Herman Gremb	alle fürstliche Saechse
Hans Erhart Otho	Tromett zue Coburg haben dies
Godfrid Jordan	Unsern guten Bruder Jonas
Michel Onardan	Kröschl Churf. Mentz. Hoff
Michel Loss	Trumetter zue gutem
Bartel Jordan	Gedächtnuss geschrieben.
Christoph Baumeir	Aschaffenburg den 24 October 1608.
Hans Lömer	
Gerhart Herzberger	

f. 12^b. . . . zu Nürnberg den 3 October 16011 (*sic*).

Sigmundt Lenckh, f. Anhaltischer Drumetter.

"Gottes Gnadt undt gesunder Leib
Ein warmes Bett und ein schenes Weib
Ein althes Gelt und gutter Wein
Soll Allzeit bei einand sein."

f. 13^b. Zu Nürnberg den 3 October 16011 (*sic*).

Ich Hans Bumer, Deifel Hensel genannt, f. Anholdischer Veld Drumetter.

"Was Gott will, wer wers."

f. 27. Prag 7 May 1610

Erasmus Ramsentaller, Gräflicher Hoenloischer Vellt Trompetter.

f. 37. Nürnberg 12 Noṽbris 1611.

Abraham Wimmer, fürstl. Brandt. zu Onoltzbach Trommetter.

f. 40. Dis schrieb ich . . . und zu gedenken unserr Riss nach Dresin, geben und geschriben. In Prag d. 1 May A° 1611.

Balthaser Bauman von Gelnhausen C-furstlich Mentzig Einspennig.

No. XXIX (B.M. Sloane 3415). The Album of Charles de Bousy, containing autograph inscriptions, some with shields of arms, a few with miniatures, of royal and princely persons, nobles and others, dated at London, Orleans, Dresden, Paris, Bützow, and Hamburg in the years 1608-1621. Some of them are:

f. 2 (fig. 5). "Fax mentis honestae gloria."
Henricus P.

f. 5 (fig. 6). "Si vis omnia subiicere subiice te rationi."
Ebor-Albaniae D.

f. 6 (fig. 7). 1609.
"Giunta mi piace honesta con leggiadria."
Elizabeth P.

f. 7^b. 16 C H 10.
J. S. T. D.
Electoral arms of Saxony.
Christian Churfürst.

f. 8. Arms of Denmark.
Hedwig geboren aus Königlichen Stamme Denmark, Churfürstin zu
Sachsen, 1610.

"Halss mitt jderman freuntlich
Trau aber unter tausent kaum Einen."

f. 21. "Vanish Feare since they who fall low must dy
As well as they that tumble headlong from the sky."
"Felix periit quicunque quem odit premit."
"Dou leur D'ou leur."
"Concilio nel guanciaie."
"Nach Recht und Ehren Stehet mein Begeren."
"Mas honra que vida."

E. Sackeville.

(This is probably Sir Edward Sackville (1591-1652), who, after the death of his brother Richard in 1624, became fourth Earl of Dorset; he was one of the commanders of the forces sent under Sir Horatio Vere to assist the King of Bohemia, sailed on 22nd July, 1620, and was present at the battle of Prague on 8th November, 1620. In 1621 he vigorously defended the proposal to vote a subsidy for the recovery of the Palatinate.)

f. 32. 1621.
"Vivit post funera virtus."
H. Levingstone.

"Est virtus, &c."

Arthurus Forbesius, Scotobritannus.

(This is probably the Sir Arthur Forbes who in 1631 commanded one of the five battalions of Scottish soldiers in the north of Germany under the Swedish general Todt, and who helped to clear Mecklenburg of the enemy and to storm many fortified places. Fischer, *The Scots in Germany*.)

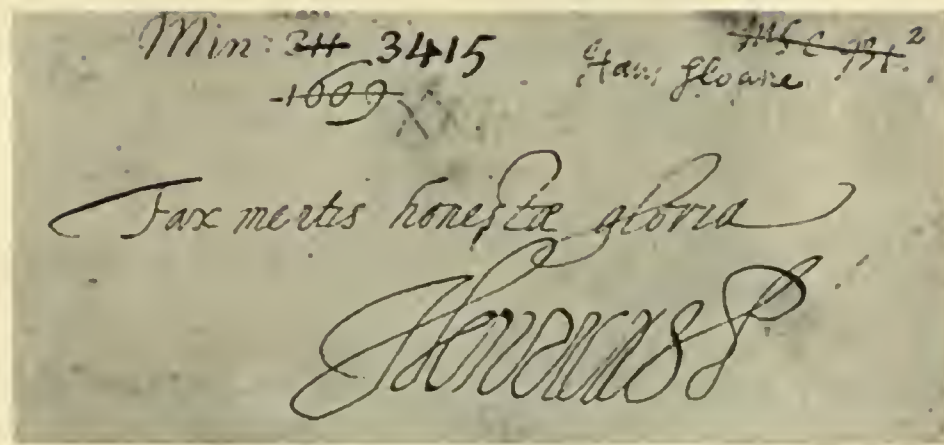


Fig. 5. Album of Charles de Bousy.

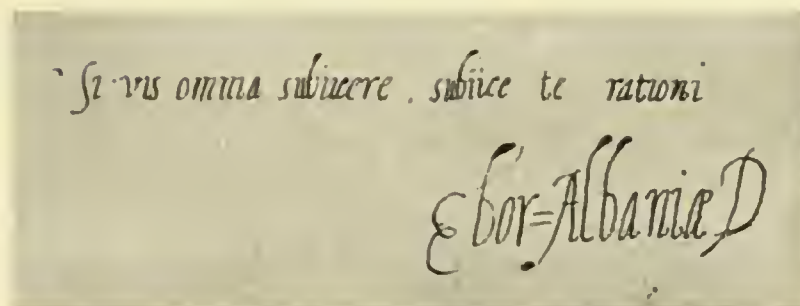


Fig. 6. Album of Charles de Bousy.

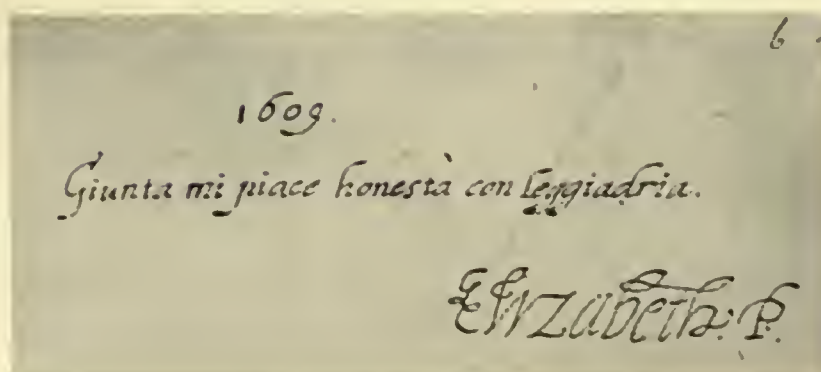


Fig. 7. Album of Charles de Bousy.

No. XXX (R.C.). The Album of Antonio Fabri, Organist at S. Antonio at Padua, contains inscriptions, sometimes accompanied by arms and miniatures, of Danish, German, and Swiss students at the University of Padua, in the years 1608 to 1625; it is in its original stamped leather binding with the monogram of the binder, M. W. Amongst the entries are the following:

f. 27. "Chi ha la fortuna per guida va sicuro al suo viaggio."

Arms (R. ii. 359: S. i. 15).

Giovanni Filippo della piu antiche famiglia Conti d'Ortemburgo . . . Padoa alli 9 di feb: de l'anno 1615.

f. 40^b. Arms: *per bend silver and gules a bend nebuly counterchanged quartering silver three piles azure a base gules, over all on an escutcheon azure a chevron silver* (R. ii. 1113: S. i. 26, who blazon 1st and 4th quarter: *per bend nebuly silver and gules*).

Udalricus Baro a Wolckenstein et Rodnegg . . . Patavii, 1^o Aprilis A^o 1625.

f. 41. His miniature full-length portrait.

f. 47^b. "Anno 1617. 26 Martii."

"Ou bien ou rien."

Arms (R. i. 1049: S. v. 3).

Ferdinando Jörgero L. Barone in Kreuspach.

f. 48. Miniature.

f. 73. "Bien vivre et bien mourir

C'est mon plus grand desir." "Tacendo spero."

Arms (R. i. 37: S. i. 22).

. . . Padova l'anno 1628 ad. 28 Feb.

Eustachio Barone d'Althan signor in Goltburg . . .

f. 117. 16 + 11.

"Tout pour elle rien sans elle mais qui est elle."

"A . S . V . M . D . S . S ."

Arms (R. ii. 808: S. iii. 89).

Sebastian Speidl.

f. 151. "Musica est grata Deo, et hominibus."

"M , V , S , I , C , A . Anno 1615."

Miniature showing the owner or his friend playing the spinet.

. . . Samuel Gensufius Austriacus.

f. 162. "Non mi curo della Luna
Quando mi splende il Sole."

Arms (R. ii. 587: S. i. 174).

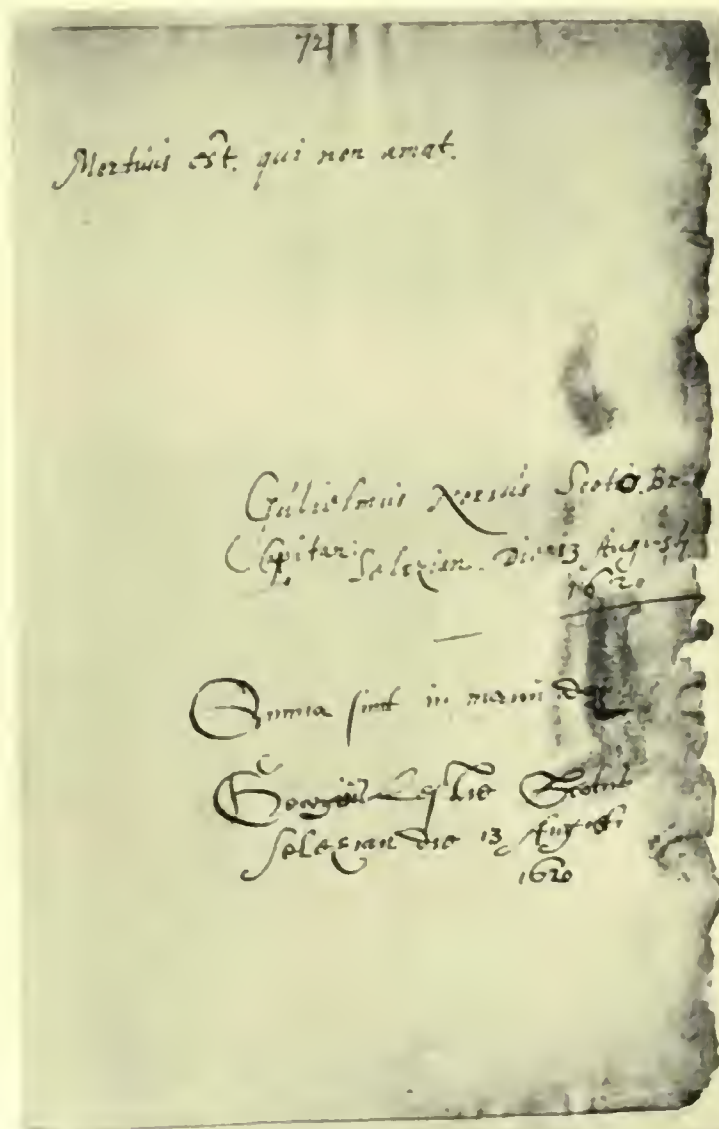
Daniell von Rochow m.ppria.



1



2



3

No. XXXI (R.C.). The Album of Johannes Wiliczky of Witkowa, a Polish noble, is full of interesting inscriptions and finely painted shields of arms, collected by him whilst visiting the courts of northern Germany in 1608 and 1609, London and Paris in 1610. In August, 1620, we meet him at the camp of Selczan (south of Prague) amongst the Scottish captains of Frederick, Count Palatine of the Rhine, King of Bohemia. Amongst the entries, dated 1608 to 1630, are the following:

f. 24^a.

"16. H. E. 09."

"H. P. P."

Arms of Brunswick with inescutcheon: Bishopric of Halberstadt.

Henricus Julius Dei gratia P. E. H. D. B. D. L. manu sua.

"16 IH 09."

"En dieu est mon esperance."

Elisabeth geboren aus Königlichen Stamme zu Dennemarken, Hertzoginn zu Braunschweig unnd Lüneburg meine Hand.

"1609. La volonté de Dieu est mon but."

Frewlein Elisabeth, geborne Hertzogin zu Braunschwig und Lüneburgk meine Handt.

"1609. Omnia ā Deo."

Freulein Hedwig geborne Hertzogin zu Braunschwig und Lüneburgk meine Handt.

1609.

"Deus ordinabit."

Frewlein Dorothea geborne Hertzogin zu Braunschwig und Lüneburgk, meine Handt.

f. 24^b.

"16. PHILOSOPHIA. 09."

"Christo et Reipublicae." "Pulchra est Concordia Cordis et Oris."

Arms of Pomerania.

Philippus Dux Pomeranorum, in Veteri Stetino 15 Martii . . .

f. 25.

"16. P. 09."

"A. N. C. W."

Arms of Holstein.

Sophia geborne zu Sleswigk Holstein Hertzogin zu Stettin Pommern.

f. 29^a.

"1.6. A. . o. 9." "V. P. F. U."

Arms of Holstein.

J. Adolff H. z. Holstein.

"16 A o. 9 A. W. E. G. G."

Arms of Denmark.

Augusta, geborene aus Königlichen Stamm Dennemarken, Hertzogin zu Schleswig Holstein. Meine Hand.

16 Aⁿ 09.

Arms of Holstein.

Fridericus D. S. Holsatiae.

Adolphus D. S. Holsatiae.

f. 29^b (plate XXXI. 2). "1 A. 609." "W. G. W."

Philippus Julius Dux Stett. Pom. manu propria.

16. P. I. 09. "W. R. M. D. H. G."

Agnes Gebor. Marggrefin aus Churfürstlichem Stam Brandenburgk Herzogin In Pommern Manu propria.

1609. A. N. G. W.

Elizabeth Sophia Geborne Marggrefin aus Churfürstlichem Stam zu Brandenburgk. Manu ppa.

1609.

"A. W. G. G."

Dorothea Sibylla Geborne Marggrefin aus Churfürstlichen Stam Brandenburgk. Mappa.

Two shields of arms: Pomerania and Brandenburg.

f. 33.

CIO IO CIX.

"Vince malum bono"

S. D.

Christianus Dux
Brunsvicensis et
Luneburgensis.

Rudolphus Dux Brunsvicensis
et Luneburgensis.

Arms of Brunswick.

f. 33^b.

1609.

"Herr Wie Du Wilt."

Marie geborne Herzogin zu Sachsen des Kaiserlichen freyen weltlichen Stiffes Quedelburk Abbettissin . . .

Arms of Saxony with inescutcheon Quedlinburg.

f. 39.

"1609." "D. A. M. N."

Johannes Georgius princeps Anhaltinus manu ppr.

1. 6. 1610. 9.

"J. D. H. J. D. H."

Dorothea, F. z. Anhalt geborne Pfaltzgreffin bey Reihn.

Sophia Elisabeth F. z. Anhalt manuppr.

Agnes Magdalena F. z. Anhalt.

Anna Maria F. z. Anhalt.

Arms of Anhalt-Dessau.


Entries of peculiar interest are the following inscriptions of Scottish captains and soldiers, dated 13th August, 1620, at the camp of Selczan, about 25 miles south of Prague, men who either had followed Frederick and Elizabeth when they accepted the Bohemian crown, or formed part of the 2,000 volunteers raised for them by James I.'s permission, by Sir Andrew Gray, who early in 1620 had come from Bohemia to England for that purpose. After the disastrous battle of the Weisse Berg, which put an end to Frederick's kingship of Bohemia, some of these captains joined the different forces of the Union, and some of them, later on, the Swedish army; a few became noted leaders under Gustavus Adolphus, especially Sir James Ramsay, who, distinguishing himself in many engagements, especially in the defence of Hanau, died in 1639. George Leslie died in 1638 as Governor of Vechta, in Oldenburg. These and William Stewart, brother of the Earl of Traquair, are mentioned in the "list of the principal Scottish officers employed by Gustavus Adolphus in Germany" (Th. A. Fischer, *The Scots in Germany*).

- f. 65. "Plus tost que tard."
Andreas Gray.
- f. 66. "Jamais arriere."
J. Ramsay.
"Sans sousie."
James Norrie. Francis Tirwhitt.
"Mediocria tuta."
Patricius Hannay.
- f. 72 (plate XXXI. 3). "Mortuus est qui non amat."
Gulielmus Norius, Scoto. Brit.
Capitan: Selczian Die 13 Augusti 1620.
"Omnia sunt in manu Dei."
Georgius Leslie, Scotus.
Selczian die 13 Augusti 1620.
- f. 73. "Poca parola, basta."
Gulielmus Steuwart Scotobrittannus.
Capitan: Selczan 13 Aug. 1620.

On the last leaf, f. 223, we find the arms of Austria with the collar of the Golden Fleece and the autographs, dated 1610, of Isabel Clara Eugenia, daughter of Philip II. of Spain, and of her husband Albrecht, Archduke of Austria and Governor of the Netherlands. They were relegated to the end when the owner had his Album bound, no doubt because they were then on opposite sides in politics.

No. XXXII (R.C.). The Album of Valentin Löw, a pastor of the reformed Lutheran church at Neudeck, Prague, and Eger, is of peculiar interest for its autographs, some with shields of arms, of generals and other soldiers and high officials of the kingdom of Bohemia, some of whom took a leading part in the revolution of 1618, the beginning of the 'Thirty Years' War, and had become adherents of Frederick V, Count Palatine of the Rhine, after his election as King of Bohemia in 1619. After the disastrous battle of Prague some fled into exile, others were beheaded or imprisoned in 1621, and the property of most of them confiscated. Between 1620 and 1623 there are no inscriptions, but many from 1624 to 1629, referring to the persecution of their common religion and church.

Some of the entries are:

f. 1. 160  9 "Gott Mein Hoffnung."

Arms: *gules a swan silver* (R. ii. 742: S. i. 31).

Hans Georg Herr von Schwannbergk . . . R. K. Mjt. Radt und oberster Landt Kamererr derr Kronen Behmen geschribn Prag den 11 August.

f. 2. 16 . S . E 09.

"Ee wiegs alss dan wags."

Arms: *silver a tower gules quartered with azure two gold maces flory in saltire and in base a gold fleur-de-lis, on an inescutcheon gules an eagle dimidiated impaling silver a cross gules* (R. ii. 911: S. i. 18).

Hainrich Matthes Graf von Thurn, General Leutenamt Obrister über ein Regiment Knecht, schrieb zue guetter gedechtnuss Jn Prag, den 23 Tag Augusti.

(There were many causes for the breaking out of the war, but this Count von Thurn gave the signal for it on the 22nd May, 1618, when he and his co-conspirators stormed the castle, threw the imperial counsellors out of the windows, and the following day constituted a provisional government of Bohemia, the chief directors of which were Wenczel Wilhelm von Rupowa, Wenczel von Budowa, and Andreas Schlick; Thurn did not form part of it, but centred his energies on the organization of the Bohemian forces.)

f. 3. 16 - 09 "G . G . G . W . W ."

Arms (S. i. 23).

Leonhardt Co(lonna) Freih. zu Vels R. K. M. Radth undt Oberster Veldt Marschalck im Königreich Behmen . . . Prag den 26 August.

f. 4. 1609 "Trau Schau Wem."

Arms (S. i. 32: R. ii. 86).

Wilhelm der Elter H. von Lobkowicz R. K. M. Mundschenk Verorneter Director von den drei Evangelischen Stenden des Khinikraich Behem . . . Prag . . . d. 26 August . . .

f. 5. "Mein Hoffnung in Gott allein."

Arms: *gules a bend wavy silver over all a staff raguly proper in bend sinister* (not in R. or S.).

Andreas Stegeman, Rom. Kais. May. Hertschier undt Hoffbalbier. Jn Prag 23 October 1616.

f. 24. "1610." "Gottes Gnad erfreiet mich."

Arms: *gold a griffin holding in its right paw a hammer azure* (not in R. or S.).

Christoff Khober von Khobersperg Rom. Kai. Maytt. Raith Rath bei der Behmischen Cammer Buchhalterey. Prag 8 Aprilis a. w. s.

(This man, who had been elected one of the representative directors of the new government in 1618, was imprisoned for having taken part in the revolution, and beheaded 21st June, 1621.)

f. 25. Anno 1609 d. 26 September.

Arms: *barry silver and sable on a pile transposed azure a tower argent loop-holed gold and topped with a spire gules rising from a mount vert* (not in R. or S.).

Eustachius Wettengel sambt seinen Söhnen Alle vonn Neuen Perg.

(The property of this rich citizen of Prague was confiscated after the battle of the Weisse Berg.)

No. XXXIII (B.M. 15736). The Album or "Hand und Wappenbuch", as the owner, Georg Andre, Freyherr von Herberstein, called it, contains autographs and arms of royal and princely personages, and of his friends and fellow students at Steyr in 1611, Strasburg 1611-1615, Würzburg and Frankfort-on-the-Main 1615, Leyden, Louvain, London 1615-1616, and Steyr 1622-1623. Among the inscriptions are:

f. 4. "Si vis omnia subicere, subijce te rationi."

1616. Carolus P.

f. 5. "Non fa stimo che dell' honore."

1615. Elisabeth.

f. 5^b. 16. E. 15.

"R. M. H. A. D. W."

Fridericus Elector Palatinus.

f. 7. 1611.

"Sufficit mihi gratia tua Domine."

Arms: quarterly, 1, *per pale gold and silver an eagle displayed sable*; 2, *gold a crowned eagle displayed sable*; 3, *checky gules and sable*; 4, *gules two bends sinister gold*. Over all an *escutcheon per fess sable two silver bars and silver* (S. i. 6).

Henricus Wenceslaus Dux Monsterbergensis.

Argentorati 5 Dec. a. ut sup.

- f. 16. "1611." "Ex alta pietas mortalia despicit arte."
 Arms of Reus-Plauen (S. i. 19).
 Henricus Medius Ruthenus, D^r in Plauen.
 Argentorati, xx Dec.

No. XXXIV (B.M. 17083). Album of Sir Thomas Cuming, collected whilst at the University of Heidelberg, and at Bâle, Leyden, London, Prague, and Vienna in the years 1612-1616. Prefixed is a copy of letters from Frederick V., Elector Palatine, recommending him on the score of consanguinity to all the noble persons of the name of Buchan dwelling in Austria. Some of the entries are:

- f. 4. Arms of the Elector Palatine, surrounded by the Garter.
 "16 . E . 14 ."
 "R . M . H . N . D . W ."
 Fridericus, E. P. Heidelbergae die . . . Iulii 1614.
- f. 4. Arms of Charles I. as prince, and his portrait.
 "Si vis omnia subjicere, subjice te rationi."
 Carolus, P. 1613.
- f. 10^b. } Arms of Brandenburg.
 f. 11. } "1614." "A coeur vaillant rien est impossible."
 "Deo parere libertas."
 Georgius Wilhelm, Marchio Brandenburgensis.
 Dux Prussiae Iuliae Cliviae Montium.
- f. 13. Arms of Palatinate and Bavaria.
 "16 M 16."
 "In Deo mea consolatio."
 Wolfgangus Guilelmus Comes Palatinus.
 Dux Bavariae Iuliae Cliviae Montium.¹
- f. 43. (John Ramsay, Viscount) Haddington. 1613.
- f. 44. Robert Couttis. 1613.
- f. 46. Petrus (Blackburn) Abredonensis in Scotia episcopus. 1612.
- f. 47. "1616."
 Venceslaus Guilielmus, Baro à Raupa, S. Caes. Maj. à consiliis et cubiculis.
- f. 59. Tobias Matthaeus, Eboracensis Archiepiscopus.
- f. 59^b. Jo. Kinge, Episcopus Londinensis.

¹ It is interesting to note the inscriptions on ff. 10^b, 11, and 13 of Georg Wilhelm, Margrave of Brandenburg, and Wolfgang Wilhelm, Count Palatine; both were claimants to the succession of Jülich, Cleve, and Berg, and their signatures give expression to their rivalry.

- f. 64. "1616." Rodolphus Hospinianus, Tigurinus.
 f. 65. "1615." Dionysius Gothofredus, Heidelbergae 1615.
 f. 67. "1612." Alexander (Douglas) Episcopus Moraviensis.
 f. 67^b. David (Lindesay) Episcopus Rossensis.
 A(ndrew Lamb) Brechinen.
 f. 81. "1613." A. Ramsacus, M.A. Phi. Doct. Londini, 1613.
 f. 83. J(ames Montagu) Bath(oniensis) et Well(ensis Episcopus).
 f. 87. Rob(ertus) Abbott, Sacrae Theol. Acad. Oxon. Profess. Regius.
 f. 105. Valentinus Carey, Procancellarius Academiae Cantabrigiensis.
 f. 105^b. Johannes Richardson, Theologiae Professor Regius.
 f. 136. "1613." Guil(ielmus) Pemberton, ecclesiae Dei in paroccia de Ongar
 Altà in comitatu Essexiae Minister.
 f. 143. Geor(gius Gladstones) Sancti Andreae Archiepiscopus.
 f. 145. 1613. Gulielmus Crashovius, verbi Dei apud Templarios Londoniae
 praedicator.
 f. 146. "1612." Patricius Sandaeus in Collegio Edinburgo Professor
 Philosophiae.
 f. 148. "1613." Johannes Prideaux, S.T.D. Colegii Exoniensis Rector,
 Oxoniae.
 f. 150. "1613." Js(aac) Casaubonus, Londini.

No. XXXV (R.C.). The Album of Giacomo Lauri, an engraver at Rome, author and engraver of "Antiquae urbis vestigia quae nunc extant. 1608", and of "Antiquae urbis Romae splendor, 1612", who also engraved after Titian, An. Carracci, and Giuseppe d' Arpino.

Unfortunately this book has been restored, as the restorer's remarks on the fly-leaf show, in the year 1687 by Anne Lefebure, "Marchant Orfevre," at the sign of the Ville de Paris at Rome, and has been badly used, many of the arms having been cut out and others painted over at the restorer's fancy. The book also contains copies of letters Lauri had received from crowned heads acknowledging the receipt, and praising the beauty, of his works, likewise many inscriptions, with shields of arms, of visitors to Rome, and some of these arms have either been wrongly blazoned or badly treated on restoration. Among the entries are:

- f. 98. "Tout avec le temps."
 Arms (S. v. 149).
 Rome den 30 Martii Anno 1622.
 Erick Rosen Krantz Jacob Son Danus.

f. 112. "Año 16 Nichts ohn Ursach 20. die 21 8bris."

Arms (S. i. 19).

Carl Fugger Freiherr von Kirchberg und Weisenhorn.

f. 164. "Integritate nil pulchrius."

Arms: *azure a chevron gules between ten crosses gold*; instead of *gules a chevron between ten crosses paty silver*.

Georgius Baro Berkeley, Anglus. 1628.

f. 167. 1629.

"Fortuna fortes metuit ignavos premit."

Arms: *gules a talbot passant gold* (should be *gold a talbot sable*) quartering Cromlin.

Gulielmus Courten, Anglus.

Romae, 22 . . .

(This is the second son of Sir William Courten (Courteen), who died at Florence in 1655.)

f. 205. "Meruisse satis."

I that have sene the ingenuitie of S^{or} Giacomo Lauri and tasted the delicious fruits of his much to be commended labours, am invited to make choice of these two words above for my Motto.

Guglielmo Yelverton, Jnglese.

Roma, 27 Aprile 1624.

f. 205^b. Inquier

At London for S^r Henry Spelman of Congham in Norffolke the bea(rer) of these armes, who will plesur yo(u) in the Antiquities of England and make you wellcum.

Arms: *sable twelve plates and two flaunches silver* (Spelman) quartering *gules a chief ermine* (Narborough), *azure a chevron between three gold leopards' heads* (Frowyk), and *gules two leopards silver* (Lestrange).

Leffte heere in Roome the laste of Desember 1619 by his secund so(n).

f. 206. Pietro Wentworth servitore del Sig^{ra} Jacobo Lauro in recordanza dell amicitia scrissi quest(e) in Roma alle sedeci d'Aprili MDC 20.

Arms: *Sable a chevron between three leopards' heads gold*.

(Sir Peter Wentworth, the politician, born 1592, was made a knight at the coronation of Charles I.; on 18th December, 1641, elected to the Long Parliament as member for Tamworth; was appointed one of the Commissioners for the king's trial, but refused to act; a friend of Milton. By his will he left his property to his grand-nephew, Fisher Dilke, on condition that he and his descendants should take the name of Wentworth. A portrait of Sir Peter Wentworth is in the possession of Sir Charles Wentworth Dilke, Bart., M.P.,

whose great-great-grandfather, Wentworth Dilke Wentworth, was the last of Fisher Dilke's descendants to use the stipulated surname. *Dict. Nat. Biogr.*)

No. XXXVI (R.C.). The Album of Marcus Antonius Welser, of the patrician family of that name at Augsburg, contains inscriptions, some with the arms also, of his friends and fellow students, dated at Bourges, 1616-1618, Lyons, 17th May, 1618, Geneva, 20th May, 1618, Augsburg, 21st September, 1618, Venice, 20th October, 1618, Bologna, November, 1618, 28th October, 1619, Florence, 9th November, 1619, Siena, 28th February, 1620, Rome, 25th April and 16th May, 1620, Perugia, September, 1620, Rome, 4th April, 19th May, 1621, April, 1623, April, 1624, Iburg (the residence of the Bishops of Osnaburgh), September and October, 1625, Munich, January, 1626, Cologne, October, 1629.

As the inscriptions show, he was in the service of Eitel Friedrich, Cardinal von Hohenzollern, who was created cardinal in 1621, Bishop of Osnaburgh, 19th April, 1623, and who died 19th September, 1625. Some of the entries referring to the cardinal's death are dated at "Iburg in tempore desolationis", 26 September to 1 October, 1625. Among the entries are:

f. 1. "Amicum proba probatum ama."

The owner's arms (*per pale silver and gules a fleur-de-lis counterchanged*), name, and the date 1616.

f. 21. "Amicum nec prospera extollunt nec adversa deprimunt."

Arms (R. ii. 126).

Jucundae memoriae ergo haec sua insignia pingi curavit Dñõ Nobilis^{mo} Antonio Marco Welser, Perutiae 24 Septem. 1620, Carolus Emmanuel Abbas Madrutius Comes Avij et Chiallanti.

(Charles Emanuel Count Madruzzo, b. 5th November, 1599, Bishop of Trient in 1629, was the last of his family.)

f. 39. "Sic, sic juvat ire sub umbras."

Arms: *azure a pelican in her piety gold.*

Arthurus Lake, Anglus.

Bourges, Ann. 1616 prim. Oct.

f. 58. Dis schrieb . . . Johan Friederich von Bittlenberg genannt Kessel von Haxthausen zu Iburg in tempore desolationis den 26 Septembr. A°. 1625.

f. 62. "Per Augusta ad Augusta."

. . . Guil. Henseler. J. U. L. Ill^{mi} et R^{mi} Cardinalis Zollerani Ep̃i Osna-brugens. Cancellarius.

Iburgi ipsis Kal. Octob. 1625.

No. XXXVII (R.C.). The Album of Johann Theodor von Roth contains inscriptions, many accompanied by the arms, of his friends and fellow students

at Würzburg in 1621-1622, Freiburg 1623, Besançon, Orleans, and Bourges 1624-1625, Lyons and Florence 1626, Siena 1626-1627, and Venice 1628. Some of the entries are :

f. 21. 1624. "A coeur vaillant, rien impossible."

Arms (R. ii. 535: S. i. 25).

Henricus Alexander Baro de et in HohenRechberg, 15 Aprilis a Besançon. Note in the owner's hand: "+ regescat in pace."

f. 32. "Les Roys et les amants ne veulent point de Compagnon."

Arms (R. ii. 1121).

Jean Honoré Wurmbrand Baron escrit cecy à Bourges ce 26. d'Avril 1625.

f. 51. 1624. "A tous servir c'est mon desir."

Arms (R. ii. 817: S. i. 111).

Wolfgangus Wilhelmus à Stadion.

f. 99. "Virtutis Gloria Comes." 1624.

Arms (R. ii. 723: S. i. 133). Aureliis 25 Octob.

Johannes Philippus à Schönborn et Philippus Erwinus à Schönborn Fratres.

(This Johann Philipp von Schönborn we shall presently meet in the Album of Georg Christoph Hanseman, of Ratisbon, as Elector and Archbishop of Mainz, 1647-1673.)

f. 118.

"Honneur, Santé et longue vie

Bon cheval et Bell'amie

cent Escus quand je voudray

et le Paradis quand je mouray."

Arms (R. ii. 275: S. i. 81).

Godefridus Henricus à Muckenthall, Biturigibus die 30 Novembris Anno 1624.

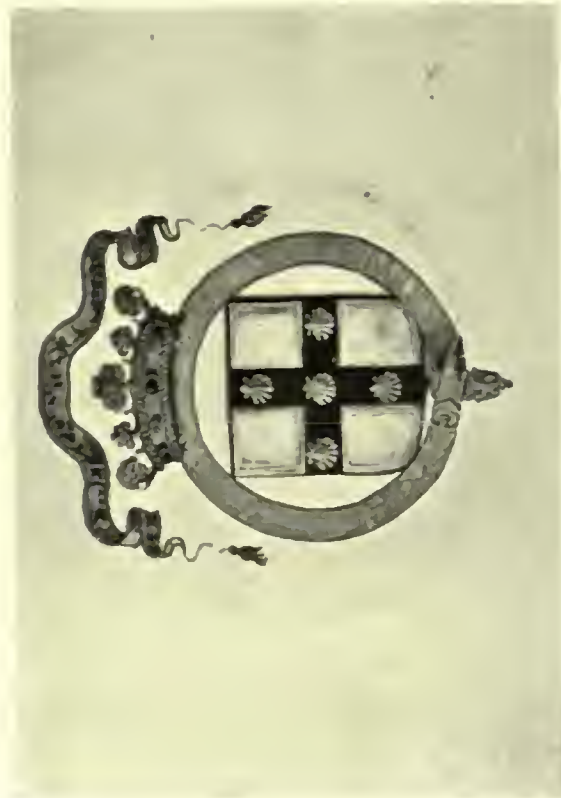
No. XXXVIII (B.M. King's 436). An Album, described as that of Charles Louis the Elector, son of Frederick, King of Bohemia, but which I have reason to believe belonged to his elder brother Prince Henry Frederick (1614-1629), heir-presumptive to the throne of Great Britain, and only after the latter's death to have come into the possession of, and been continued by, Prince Charles Louis. This Album, dated from 1622 to 1633, contains amongst others the autographs, some accompanied by the arms, of Charles I. and his queen Maria Henrietta, of the King and Queen of Bohemia, of William Cecil, 2nd Earl of Exeter, and Elizabeth Drury his second wife, Diana Cecil Countess of Oxford, Christian Duke of Brunswick, Frances Howard Duchess of Richmond, William Herbert Earl of Pembroke, George Villiers Duke of Buckingham, Henry Rich Earl of Holland, John Holles Earl of Clare, Philip Herbert Earl of Montgomery, and Susan Vere Countess of Montgomery.



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A later entry, dated 1699, is that of Charles Maurice; illegitimate son of Charles Louis by Louise von Degenfeld, whose children received the title of "Raugraf".

Some of the entries mentioned are as follows:

f. 1.

1626.

"Si vis omnia subdicere subdices te rationi."

Carolus R.

f. 2.

"En dieu est mon esperance."

Henriette Marie, R.

f. 3.

16 E 22.

A . E . T . C . A . C .

Frideric.

f. 3^b.

1624.

N . V . C . Q . A . C .

Elizabeth.

f. 4. Arms: Bohemia and Electoral Palatinate impaling Great Britain.

f. 5^b (plate XXXII. 1). 1626. "Cor unum via una."

your highnes most humble sarvants

Exeter.

Elisa: Exeter.

f. 6 (plate XXXII. 2). Arms: Cecil Earl of Exeter impaling Drury.

f. 7^b. Je me console en m'assurant que le ciel possede ce que i'ay perdue.

D: Oxenford.

1626.

Servante tres humble de v're Altesse.

f. 8.

Arms: Vere Earl of Oxford impaling Cecil.

f. 9^b.

16 E 22.

"Tout pour dieu et ma chère Reine."

Christian (Duke of Brunswick).

f. 10.

Arms of Brunswick-Lüneburg.

f. 20^b. "la plus brave conquete c'est de vaincre soy mesme."

K: Buckingham.

très humble servante de votre Altesse.

f. 24^b.

1626. "Virtus secunda sequetur."

Pembroke

y^r Highnesses most humble servant.

f. 31^b (plate XXXII. 3). 16. "Fidei coticula crux." 25.

Arms of Villiers, Duke of Buckingham: *silver on a cross gules five escallops gold*, surrounded by the collar of the Garter.

- f. 32 (plate XXXII. 4). "Adelante."
G. Buckingham.
- f. 32^b. "Nil actum dum quid agendum."
Hollande.

f. 33. Arms of Henry Rich (second son of Robert Earl of Warwick), Earl of Holland: *gules a chevron between three gold crosses botony, a crescent for difference*, surrounded by the collar of the Garter.

"Ditior est qui se."

- f. 34^b. "Mihi quid nisi vota supersunt."
Y^r highnes late most glorius brother Prince Henry most obliged and your
Highness most humble servant

Clare.

- f. 35. Arms of John Holles, first Earl of Clare.
"Perdidi sed inveniam."
- f. 38^b. "Turpis sine pulvere palma."
Montgomery.
youre Hinesses most humble servant.
- f. 39. "The more I love the more I serve."
S. Montgomery.

No. XXXIX (R.C.). The Album of Andreas Pramer contains inscriptions and arms of his friends, dated at Paris, Orleans, Saumur, Montpellier, Toulouse, in the years 1632 and 1633, and a few at Florence and Milan in 1634. The following are some of the entries:

- f. 25. "Principibus placuisse viris non ultima laus est."
Robertus Southwell, Hibernus ex Kinsale.
- f. 26^b. Arms of Hanau Münzenberg.
- f. 27. 1633. "Pour parvenir j'endure."
"Tandem bona causa triumphat."
Johannes Ernestus Comes in Hanau.
escript à Paris, le 27 du May.
- f. 29^b. "Gloria non me praeda trahit."
Franciscus Hartardus Comes à Schwartzenberg.
Paris, 27 Augusti 1633.
- f. 30. Arms of Schwartzenberg (R. ii. 745).

No. XL (R.C.). This Album, consisting of an interleaved copy of Johannes Sambucci's *Emblemata*, Antwerp, 1569, has been used as an Album from 1601 to 1612 by Georg Emrich, and from 1639 to 1654 by Heinrich Runge, who from 1639 to 1640 was assistant to a "plague barber-surgeon" at Dantzic, and later on

an independent barber-surgeon at Kunau; it contains inscriptions of Runge's friends at Breslau, Danzig, and Kunau in the years 1639 to 1654, and the most interesting one is that of his eight co-assistants,

"Gotthard Gnadesfriedt von Görlitz,
Zacharias Hoffman von Leipzigk,
Hans Preussel von Hall aus Saxen,
Michel Mongzen vonn Braunzweig,
Paul Rose vonn Barrleben,
Christian Wiegandt vonn Kiel,
Hans Farnberg von Osnabruck,
Hanns Musick von Coppenhagen,"

who describe themselves as "dieser Zeit Allesamt bey Herrn Michel Branden Bestalten Pestbarbiern in Danzig Dienende". On the preceding page is their master's inscription, dated 22nd March, 1640, "Michel Brandt, Bürger, Barbierer und Wundartzt dieser Zeit pestilentialis."

No. XLI (R.C.). The Album of Stephanus Tucher, "Patricius Noriber-gensis" as he calls himself on the title-page, is in its original sharkskin binding; it contains inscriptions, a few with shields of arms, of his friends and relations at Nuremberg in 1646, and of his fellow students and learned men at the University of Strasburg in 1647-1649.

The following are a few of the entries:

f. 47. 1647. "Fortiter mori melius est quam turpiter vivere."
Gustavus Adolphus Comes Nassoviae Sarraepont.

f. 102. "Omnia cum Deo et nihil sine eo."
Arms (R. i. 876: S. i. 205).

Albrecht Haller von Hallerstein des Eltern gehaimen Raths.
Anno 1646 den 30 Apprilis. Nürnberg.

f. 114. "Nihil hominibus praestantius, nihil utilius ordine."

Arms: *silver a bend sable and three silver chess rooks on the bend* (R. i. 526: S. i. 206).

Christoff Derrer von und zu der Untern Burg.
Nürnberg d. 25 April A° 1646.

f. 119. "Gewiss ist der Todt und der Tag
Die Stund aber niemandt wissen mag
Darumb leb alzeit darbei
Alss wenn diss dein letzte Stundt sey."
Arms (R. ii. 947: S. i. 205).

Carl Tucher der Elter, den 5 April im 1646 Jahr.

Note in the owner's hand: Obiit 30 November 1646.

- f. 142. "Quae neglecta jacent pondus habere solent
Saepè et parvis gratia rebus inest."

Melchior Sebizius Med. Doct. et Professor, Com. Palat. Caes. et Reip.
Argent. Archiater. Universit. p. T. Rector, scrib. 23 Junii 1648.

- f. 147. "Et fata habent suas horas et moras."
"Gottes Willn, Meine Hoffnung."
Argentorati 24 Junii A. d. 1648.

Joh. Rebhan, Jurispr. D. Prof. P. p. t. Colleg. Jurid. Decanus.

- f. 149. "Omne nimium naturae inimicum."

Joh. Rudolphus Saltzmann Med. Doct. sen. Reipub. Physicus ordinar.
Universitatis Profess. publ. et p. t. fac. Med. Decanus, Argentorati scripsit
8 Cal. Julii Anno 1648.

No. XLII (R.C.). An Album important from an historical point of view is that of Georg Christoph Hanseman, a doctor of law and councillor at Ratisbon; it contains inscriptions, with the arms of many electors, archbishops, bishops, princes of the Holy Roman Empire, and of their delegates and councillors, attending the Imperial Diet at Ratisbon, called by the Emperor, Leopold I. in 1662, in consequence of the war against the Turks.

There are also the inscriptions and arms of the papal delegate, and of the ambassadors of the kings of France, Sweden, Denmark, and Norway.

Amongst the entries are the following:

- f. 15. "Sit Nomen Dñi Benedictum."

Arms: Caraffa della Spina (R. i. 371) under a cardinal's hat.

Carolus Card^{us} Carafa.

Ratisbonae, a. d. 1664.

f. 15^b. Arms: Bishopric of Würzburg quartered with Mainz and Worms; inescutcheon: v. Schönborn.

- f. 16.

12 Martii 1664.

Joēs Philippus El. A. M.

(Johann Philipp von Schönborn, Bishop of Würzburg 1642, Archbishop and Elector of Mainz 1647, Bishop of Worms 1663, †1673.)

- f. 16^b. Arms: Archbishopric of Trier quartering von der Leyen.

- f. 17.

"Sincere et Constanter."

Carolus Casparus Archi Ep̄s. Trevir. Elector.

Anno 1664 3 Aprilis.

(Carl Caspar von der Leyen became Archbishop and Elector of Trier in 1652, †1676.)

- f. 19^a.

Electoral Arms of Saxony.

f. 20. "Sursum Deorsum."

Johannes Georgius Elector.

f. 49. 1664.

Arms: quarterly 1 and 4 Bishopric of Strassburg, 2 v. Fürstenberg, 3 Wendenberg quartering Heiligenberg.

Franciscus Egon Ep̃s Argentinensis.

franz Egon von Fürstenberg, Bishop of Strasburg, 1663, †1682.

f. 51. 16. "Crede Deo Confide Deo, Spes Omnis in Illo" 63.

Arms: Bishopric of Worms quartering Kratz von Scharffenstein.

Hugo Eberhardt Ep̃s Wornat. praepositus Trevirensis.

f. 56^b. Arms of Württemberg.

f. 57. "1664." "Tout avec dieu."

Eberhard H. z. W.

f. 59. 16 "Un bel morir tutta la vita honora" 62.

Arms: Abbey of Fulda quartering von Gravenegg.

Joachimus Abb. Fuldensis S. R. J. P. Archi: Cancell^{us} Augustae p. Germ: et Gall^{iae} primar. J. L. Baro de Gravenegg.

(Joachim von Gravenegg (Graveneck), Prince Abbot of Fulda, 1644-1671.)

f. 71^b. Arms of Baden.

f. 72. "Pro fide et Patria."

9 Aprill 1664.

Leopoldus Princeps Badensis.

f. 79. 1664. 24 April.

Arms of Hessen.

Georgius Christianus Landgravius Hassiae.

f. 84^b. Arms of Holstein.

f. 85. die 4 Octob. A^o 1664.

Johannes Adolphus Dux Holsatiae.

f. 86. 1665. "Fidelitate et Constantia."

Arms (R. ii. 457: S. iii. 22), surrounded by the collar of the Golden Fleece.

Franc Eus^{us} Comes de Petting Aurei Velle^{us} Eques, S. C. M. à Secretioribus Consiliis et ad Catholicissimos Reges Philippum IV. gloriosae memoriae et Carolum Secundum ordinarius orator.

f. 87. Arms: *azure an anchor silver, on a chief gules three golden suns* (not in R.). Robertus de Grance Christianissimo Galliarum Regi a Secretioribus Consiliis nec non ad Comitia Imperii Ratisbona habita Sacra Sua Ma^{est} Plenipotentarius.

{f. 119. Arms (R. ii. 782: S. v. 3).

{f. 120. 16 A. 64. "Christo Duce."

Joannis Joachimus Comes à Sinzendorff.

- | | |
|---------|---|
| f. 122. | "Vive ut Vivas." |
| | Ratisponae 2 Aprilis Anno 1665. |
| | Maximilianus Erasmus Comes à Zintzendorff. |
| f. 123. | Arms (R. ii 1146: S. i. 23) (Zinzendorf zu Pottendorf). |
| f. 158. | den 8 Augti. 1664. |
| | "Nicks onmogelig aber schwer." |
| | Arms (R. i. 181: S. i. 125). |

Phip^e Engelbert Freiherr von Bernsau . . . Churfürstl. Durchl. zu Cöllen
Cammerherr und Oberstl. zu Fus.

In the second half, particularly the last quarter, of the seventeenth century the style and the purport of the Album changed for the worse; the heraldic paintings became fewer and fewer, and those we meet with are mostly of poor execution, and towards the beginning of the eighteenth century they have almost disappeared. Their place in the Students' Albums was taken by representations of their various amusements, feasting, drinking, etc., and the inscriptions became full of obscenities. In the Albums of other classes the heraldic paintings had made room for miniature portraits, and towards the end of the eighteenth century to silhouette portraits of the contributors.

One of the causes of the decline of the heraldic Album was its use by roving adventurers and vagrants as a means of making a living; they travelled through the country with their Albums, approaching and pestering any one they got acquainted with for his autograph and a contribution towards the painting of the arms, which contribution, I need hardly point out, was mostly spent in some other way.

In one of his letters to his son, Lord Chesterfield writes: "Make the same enquiries, wherever you are, concerning the revenues, the military establishments, the trade, the commerce, and the police of every country. And you would do well to keep a blank paper book, which the Germans call an Album; and there, instead of desiring, as they do, every fool they meet with to scribble something, write down all these things, as soon as they come to your knowledge from good authority."

In saying this, he could only have had in his mind the Album of his period; had he been acquainted with those I have mentioned, had he seen the entries of all these learned men, professors and statesmen of the sixteenth century, the "scribble" of Casaubon, Milton, Camden, Galileo, Kepler, Giovanni da Bologna, Rubens, and so many other celebrated men, he would probably have suppressed that sneer.

XII.—*On the Stone Bridge at Hampton Court.* By C. R. PEERS, Esq., M.A.,
Secretary.

Read 16th June, 1910.

THE Palace of Hampton Court is a building to which even the most unimaginative person cannot be indifferent. Built by one of the greatest and most splendid of English statesmen, and completed by one of the most magnificent of our kings, it has always been a royal pleasure-house, recalling rather the intimate private life of our sovereigns than their formal acts of state. In four years' time it will complete its fourth century of existence, and though much of its first splendour has long perished, it remains essentially a royal building; no one could take it for anything but a palace. This being so, its careful preservation is a matter of public interest, and needs no urging in this room, but for this very reason it has been thought well to lay before the Society an account of an important piece of work now being carried out there, namely, the excavation and repair of the moat and the stone bridge which spans it at the west or entrance front of the palace.

The First or Base court, into which the entrance gateway opens, is the work of Wolsey, and remains in great part as he left it. Its western range presents a façade 221 feet long, flanked by projecting wings, an addition to the original design, between which stretched a moat 50 feet wide.

In the middle of the façade is the gatehouse, which in its present form dates only from 1773, and at this point the moat is spanned by the stone bridge which forms the subject of this paper. It dates from 1535-6, succeeding a bridge built by Wolsey some twenty years earlier, which was probably of wood, but no record of it has been preserved. The stone bridge remained in use till the time of William III., when its parapets were destroyed, the moat filled in, and the bridge covered over. The bridge probably disappeared from view about 1691, and though its existence can hardly be said to have been forgotten, nothing more was seen of it till 1872, when in the course of drainage operations part of its east end was uncovered. Nothing more was done at the time, and it was not until last year that a scheme for its complete clearance, after a burial of nearly 220 years, was put into execution. For this we are indebted to Mr. Lewis Harcourt, First Commissioner of Works, to our Fellow, Sir Schomberg McDonnell, Secretary of the Office of Works, and to the late Mr. Fitzgerald, who for some years before his death most ably carried on the work of the Inspectorship of Ancient Monuments;

nor should we fail to record our grateful remembrance of the keen interest taken in this, as in so many other archaeological matters, by our late patron, H.M. King Edward the Seventh.

The bridge is now completely cleared (plate XXXIII). As its name implies, it is entirely faced with wrought stone, and is of four spans, each 8 feet wide in the clear, with cutwater piers 4 feet 6 inches thick, from which the four-centred arches spring. It is 25 feet wide between the splays of the cutwaters and has ten chamfered ribs on the soffit of each arch. One course of the original masonry is left above the arches in places, and on the cutwaters stand the stumps of octagonal shafts which rose above the parapets of the bridge and carried embattled capitals, on which were set stone beasts holding shields of the arms of Henry VIII and Jane Seymour, who became Queen in May, 1536. The masonry is of excellent quality and in very good preservation; the core is of red brick, and the facing stone comes from Headington in Oxfordshire, as appears from the building accounts for September, 1535.

Payd to John Rychemonde of hedyngton quarreman for 542 tonnys of free ston reddyscapolyd and delyv'yd at hedyngton quarre at xijd the tonne.

Also payd to Rich. Aman of the same, quarryman, for 62 tonnys 1 q' of freeston . . . at lyke pryce.¹

That the work on the bridge was begun in this month may be gathered from the accounts, in which the first references to the bridge now occur, as at

p. 353, payment to 14 labourers "standyng in the wat' w' ladyng owt of the same in the fundacyon of the ston brydge goyng in to the place";

p. 371, shovels and spades for the foundations of the bridge;

p. 374, scoops and pails "to lade the wat' owt of the fundacyon of the ston brydge goyng into the place";

p. 363, bricklayers "forseyng up the peers of the ston brydge";

p. 359, freemasons making arches for the stone bridge.

There are similar entries in October, 1535, the freemasons being at work setting the arches, and the bricklayers levelling them; in November is further mention of the arches, and the bridge was probably completed, save for the carvers' work, in this month. The building was pushed on rapidly, and payments for overtime continually occur, the workmen

workyng in theyre owre tymys and drynkyng tymys . . . for the haystye expedycyon of the same.

Next year (1536) under the dates 23rd September-21st October, occur the entries showing the completion of the work.

¹ Misc. Books: Exch. T. R. 243, p. 381.



HAMPTON COURT: THE STONE BRIDGE AS EXPOSED BY EXCAVATION, 1909

Published by the Society of Antiquaries of London, 1910



HAMPTON COURT: THE WEST FRONT AFTER THE EXCAVATION OF THE MOAT

Published by the Society of Antiquaries of London, 1910

Misc. Books: Exch. T. R. 244, p. 75: paid to Harry Corant (of Kingston, carver), for makynge cuttyng carvyng and fflenesshing of vj beests in freeston of the kyngs and the quenys as a boull a greyhonde a dragon and luncorne a lyan and a pantt' baryng the kynges armes and the quenys standyng uppon the ston brydge before the Kynges gate at xxvj^s the pece.

Also paid to Ric. Rydge (aforsaid) for lyke cuttyng carvyng fflenesshing and makynge of vj beests of the kynges and the quenys and jall and luncorne a dragon a lyan a greyhonde and a pantt' baryng the kynges arms and the quenys standyng uppon the kynges brydge aforsaid at lyk pryse.

Items for ironwork, "pyns or stayes servyng for the beestes" follow, and for setters working overtime in setting up the beasts, "for the hasty expedycon of the same."

The bridge being finished, the wall bounding the moat on the west was next taken in hand, its foundations being dug in April and May, 1538. This wall has now been uncovered, and except for the loss of its upper courses and embattled parapet, is in good condition. It is of red brick, battering slightly for rather more than half its height, and remains to within a foot of the present ground level. A curious point is that to the north of the bridge it is 3 feet 2 inches thick at the top, but to the south it is 4 feet 3 inches thick, the extra thickness being on the west side. At its south end a winding flight of brick steps leads from a now blocked doorway in the south wing of the main front to the moat, by an arch in the moat wall.

That a moat existed before the building of the stone bridge is evident from the accounts which I have quoted, but there is nothing to show whether Henry made it wider, or followed the old lines. It is quite likely that the site was moated long before it came into Wolsey's hands, when it was the site of a *camera* of the Hospitallers, and Wolsey may have retained the lines of the old moat. At any rate, its course as laid down on the plan I exhibit, a very interesting one belonging to the Office of Works, probably of Wren's time, and showing the block plan of his buildings in an incomplete state, was that which existed in Wolsey's day, and survived in part to modern times, the last section of it having been filled in within living memory. Its water level was considerably higher than that of the Thames, and it was fed by the Longford River from the east. It ran under the buildings at the north end of the west front, the brick arches through which it entered the west moat being now again revealed (plate XXXIV), and must have had a sluice at the south end towards the Thames, for draining off its water, though no trace of anything of the sort is now to be seen in the south wing of the west front. A sluice is however shown in the required position on the banks of the Thames, in Wynegaarde's drawing of 1558. I have already mentioned that the wings at either end of the west front, though of earlier date than the wall of the

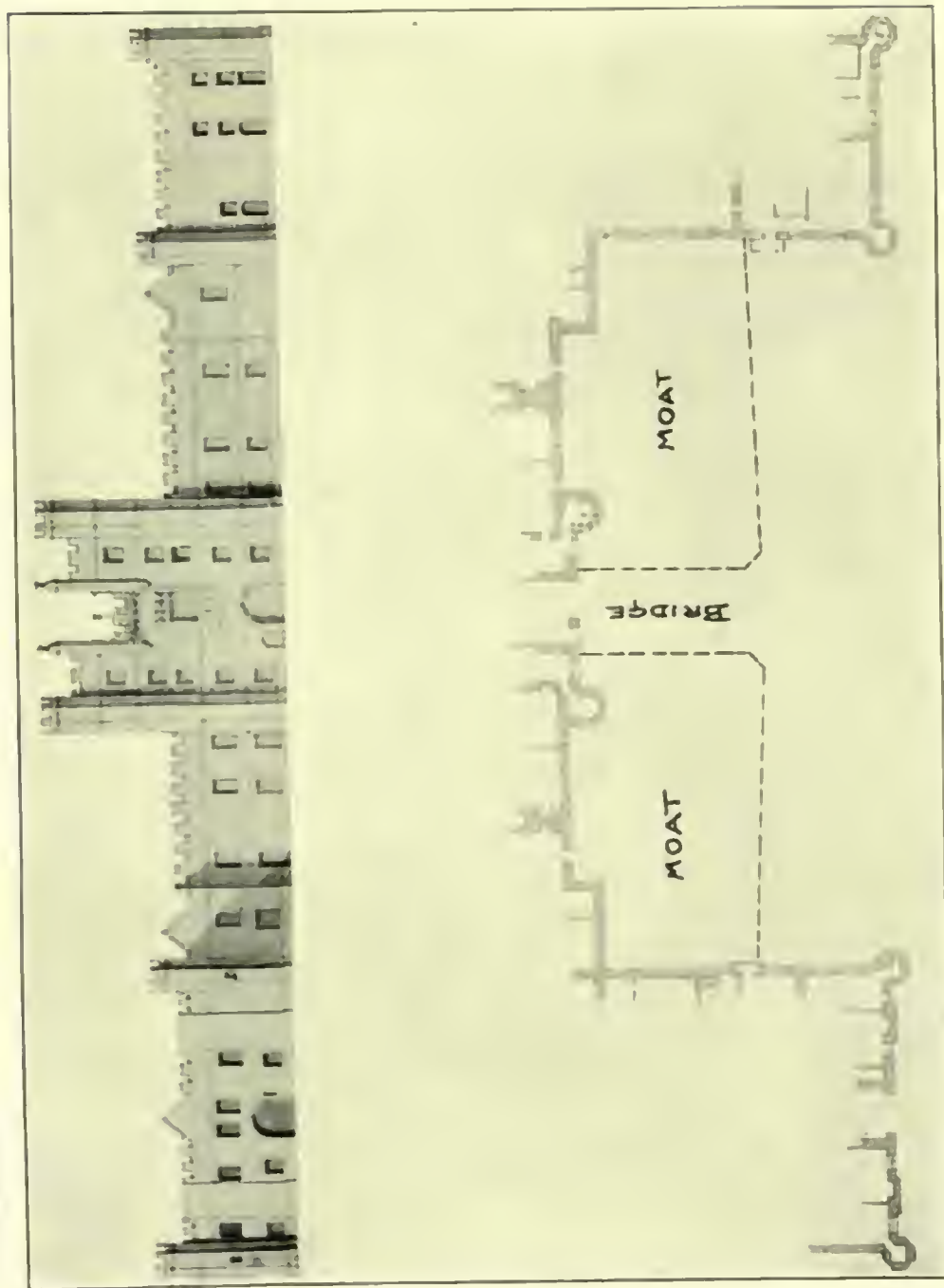
moat, are additions to the original design, so that there may have been in the first instance a more direct communication between moat and river. So much for the historical evidence bearing on the story of the moat and bridge ; the question of their treatment by the present generation must now be considered.

That this is a case where a careful and adequate restoration (I use the word advisedly) is desirable cannot, I think, be seriously disputed. Apart from the completeness of the documentary evidence, enough remains, or has been found in the rubbish which filled in the moat, to leave no doubt as to the character of the destroyed parapets and pinnacles of the bridge. Their actual proportions and certain details of treatment must indeed be decided by our twentieth-century judgement, but of this I trust there will be no reason to be ashamed.

The parapets were embattled (crest and vent, the old builder called it), and a coping stone found on the spot gives their width and section. I reserve for the moment the evidence of old drawings.

The size of the pinnacle shafts is also to be deduced from fragments, and one of the embattled capitals remains as a pattern for the rest. Similar pinnacles, but of more elaborate character, ornamented the Great Hall, and their modern copies are useful in judging of the general effect.

It will be remembered that twelve beasts are mentioned in the accounts, that is, six on each side of the bridge. Of these it is clear that the pinnacles rising from the three complete piers of the bridge accounted for six, and those on the half-piers at either end for four more, leaving two to be otherwise accommodated. The foundations at the west end of the bridge provide the answer to this question. They splay outwards in such a way as to make it clear that the parapets on either side of the approach to the bridge did the same, and the two required pinnacles must have stood at the outward ends of the splays, the parapets stopping against them. An interesting confirmation of this is given by the fact that the spacing of the parapet works out with the most exact symmetry on this basis, but with one "crest" between the outer pair of pinnacles, instead of two as on the bridge. But here a new point comes up for consideration. The west front of the gatehouse is not that for which the bridge was designed, but dates only from 1773, and does not reproduce the original arrangement. What this was may be seen from a drawing made about 1730 (plate XXXV). From this it may be observed that although the bridge was set centrally with the gatehouse passage, the provision of two archways at the entrance of the passage, a wide one for carriages and a narrow one for foot-passengers, made it impossible that either opening should be set on the axial line of the passage. Over the entry was a fine room with a projecting oriel window on the west, and the sixteenth-century architect preferred to set this window over the larger archway rather than on the middle line of the gatehouse. The parapets of the bridge abutted on the gatehouse at a con-



HAMPTON COURT: THE WEST FRONT c. 1731

From a drawing in possession of H.M. Office of Works. The lines of the bridge and moat are added

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venient distance on either side of the two archways, and the two pinnacles, or rather half-pinnacles as they would have been, would be set quite conveniently against the blank wall face on either side.

But when George III. refaced the gatehouse, the need for an unsymmetrical arrangement no longer existed. The bridge had long been buried and the moat filled in, and a wide sweep of gravel led up to the gatehouse, which was accessible for the whole of its width. So the love of symmetry, never more rampant than at that time, was allowed full play. The carriage way was taken through an arch set on the centre line of the gatehouse, and a smaller archway for foot-passengers was provided not on one side only, but on both.

On either side of the main archway half-octagonal pilasters have been added in quite modern times, when the stone vault of the gateway was set up, and come down exactly on the line of the original pinnacles of the bridge, taking up the space once occupied by the two half-pinnacles set against the gatehouse, so that there is now no room to replace them, unless the pilasters are cut away for the purpose.

This, however, is to put into practice a principle which has never yet found acceptance in these rooms, namely, restoration for restoration's sake. The tangible evidences of history pass away all too quickly as it is, and need no help from us to speed their passing. The gatehouse of George III. is a far less interesting and beautiful building than Wolsey's gatehouse which it replaces, but it is sound and serviceable, a very good piece of brickwork, and not without interest as imitation Gothic of a day when Gothic had a merely dilettantist vogue. It is part of the history of the place, and should not be altered without good and cogent reasons. One alteration, indeed, common sense suggests. The small archways on either side of the main entrance, now opening only to the moat, are useless, except to be converted into windows, and there are several other modern doorways in the front and wings which are now equally so.

So that the reproduction of the upper works of the bridge must stop at this point, that only ten of the twelve pinnacles, with their beasts, can be renewed.

To come to the beasts themselves. It will be remembered that in the accounts they are described in two sets of six each, the sets being identical except that the bull in one is replaced by "and jall" in the other. They are the king's and queen's beasts, bearing the king's and queen's arms, and it is not unreasonable to suppose that six of them bore the king's arms and six the queen's. The greyhound, the lion, the dragon, and the bull are clearly the king's beasts, all having been used as his supporters at various times, the dragon standing for Cadwallader, the greyhound for Beaufort, the lion for England, and the bull for Clarence. Now the queen's supporters were a lion with a prince's crown and an unicorn. As to the jall or yale, he is a rare and strange animal partaking of the nature of the heraldic antelope, that is to say,

wearing horns and a large pair of projecting tusks: he varies, however, from the antelope in having rams' horns and a short fluffy tail, and he is *silver bezanty*, that is, white with yellow spots. He is one of the supporters of the Dukes of Somerset, and appears in St. George's Chapel at Windsor on the stall plate of Sir John Beaufort, Earl and Duke of Somerset, *c.* 1440, and is faithfully reproduced in Mr. Hope's beautiful book on the *Stall Plates of the Knights of the Garter*.¹ His appearance at Hampton Court seems to be due to the following cause. Henry Fitzroy, the illegitimate son of Henry VIII, and his father's special favourite, was created Duke of Richmond and Somerset, and bore the yale as a supporter of his arms. He died 22nd July, 1536, or only a few months before the date of the accounts with which we are now occupied. The queen's brother, afterwards the Lord Protector of Edward VI. her son, was in the household of Henry Fitzroy, and himself became Duke of Somerset, with a grant of the queen's arms and supporters, in 1547. The connexion is suggestive, and though I can give no definite evidence on the point, Henry VIII. may have given to Jane Seymour some of his dead son's honours, and the "yale" may have become one of her beasts. But on the other hand it is just as likely that Henry took the yale himself in memory of his son, or as being a Beaufort beast, and an item for making three beasts for the fountain in the inner (now the clock) court goes to strengthen this view:

Also paid to the forsaid Harry Corant for makyng of thre of the kyngs beests in tymbre, and hartt and jall and a boull servyng to stan uppon the fontayne in the Inner Courtt by convencion at 5s. the pece.

There remains the panther. There is an entry of this time for the making of beasts in the garden: a payment to Harry Corant of Kingston, the carver of six of the beasts on the stone bridge, for thirty-eight "of the kyngs and quenys beests in freeston baryng shylds wythe the kyngs armes and the quenys . . . to stand a bowght the ponds in the pondyerd at 26/- the pese": the same price as those on the bridge, and doubtless beasts of the same description. The beasts are given thus: "fowre dragowns sey x lyones: fyve grewhounds fyve hertes: fowre jalls sey x panthers: thre bowlls an fyve iunycornes." The dragons, lions, greyhounds, and bulls are here the king's beasts, and the harts and "jalls" are also so described in the entry just quoted; of the other beasts the unicorns and some of the lions should be the queen's, and it seems likely that the panthers are so also. Luckily there is one more piece of evidence on the point. A number of

¹ Mr. Hope has since pointed out that the yale occurs as one of the supporters of the arms of the Lady Margaret Beaufort, mother of King Henry VII., on the contemporary gatehouses of her two foundations of St. John's College and Christ's College at Cambridge; the yale also forms the device of the original seal of the *custos* or master of Christ's College. The connexion of the yale with King Henry VII. and his son King Henry VIII. is thus clearly established.



HAMPTON COURT: THE STONE BRIDGE AS RESTORED, 1910

The beasts standing on the pinnacles not yet added

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entries of this date refer to the changing of the arms and badges of Queen Anne [Boleyn] to those of Queen Jane [Seymour], and among the list of alterations is the following:

Payd to harry Corant aforsaid for alteryng of 10 lybartts unto the panter, for new makyng of hedds and the taylls, serving for the Kyng's new garden.

Now the "lybartt" was one of Anne Boleyn's supporters, and it seems reasonable to infer that the "panter" into which it was converted by altering its head and tail, was one of Queen Jane's beasts.

If this chain of reasoning holds good, it seems that the dragons, bull, and greyhounds, and probably the "jall" on the bridge, bore shields of the king's arms, and the panthers and unicorns the queen's arms, while the lions were divided between them. The panels of arms on either side of the west door of the chapel afford a useful contemporary model for these shields.

It remains to consider the treatment of the walls of the moat. They were finished with battlements, on the testimony of the accounts and of drawings, but their thickness at the top, as now existing, 3 feet 2 inches on the north side, and 4 feet 3 inches on the south, is far too great to have been carried up into the battlements. The position of the western pair of pinnacles on the bridge, which seems certain on the evidence which remains, requires that the battlements of the moat should be set on the outer side of the north wall; and it is difficult to imagine that the battlements on the south wall could have been set in any other than the same line, in spite of its extra thickness. The remaining width of the wall, towards the moat, must therefore have been finished with a brick splay sloping up to the battlements, which may have been 12 inches thick like those of the bridge. At any rate, it seems reasonable to make them correspond with those of the bridge, in the absence of evidence to the contrary. These battlements had, as it seems, a "skew in freston" below them, as have all the battlements on the palace walls, that is, a splayed stone course capping a thickening of the wall. The entry referring to this is dated July, 1536, a somewhat puzzling date, as from the other entries already quoted it appears that the foundations of the walls of the moat were not laid till 1538. But any one who has worked at old documents or old drawings will know that a complete harmony of evidence is seldom attainable; it may be that only the start of these walls, adjoining the bridge, was built in 1536, and the rest undertaken after an interval.

I have mentioned the evidence of old drawings. In the case of Hampton Court there are only two to which I need now refer, one by Antony Wynegaarde, of 1558, and the other by Dirk Stoop, showing the bridal procession of Charles II and Catherine of Braganza approaching the palace. In both the battlements on the moat and bridge are shown, but neither show any pinnacles on the bridge,

though Dirk Stoop decorates palace and moat alike with small obelisks rising from the battlements, which certainly were never there. Other obvious inaccuracies occur in both drawings, notably the setting of the window over the entrance in the middle of the gatehouse, and not to one side as it actually was. And many small details, which still exist, are entirely left out, so that it is not well to base anything more than a general argument on such points.

There is only one more matter to which I need now draw your attention, namely, the moat itself. Its bottom is about 14 feet 9 inches below the present ground level, and it may be supposed to have had about 6 feet of water in it in ordinary circumstances. What has been done at present is to put down some 2 feet of soil on the bottom and to sow it with grass seed. This is now sufficiently grown to show the effect of such a treatment, and it will be seen that the dignity of the palace front is enormously increased by the exposure of the sloping bases of the walls. I think that there will be but one opinion as to the debt which we owe to the present heads of H.M. Office of Works, for the manner in which the work has been carried out.

I must not here omit to express my thanks for the great help which I have received from various members of that office in the preparation of this paper, especially from Mr. Baines, who has placed at my service a long set of extracts from the building accounts, which have thrown much light on several doubtful points. And I also have to thank our Fellow, the Rev. E. E. Dorling, and our Assistant Secretary, Mr. Hope, for their very valuable assistance on questions of heraldry; and Mr. L. F. Salzmänn for verifying at the Record Office the extracts from the building accounts.

XIII.—*Excavations about the Site of the Roman city at Silchester, Hants, in 1909.*
By W. H. ST. JOHN HOPE, *Esq., M.A.*, and MILL STEPHENSON, *Esq., B.A., F.S.A.*

Read 23rd June, 1910.

IN submitting to the Society our twentieth and final report on the excavation of *Calleva Atrebatum*, it may be pointed out that for the first time our work during the past season has lain altogether outside the Roman town. We were able in 1908 to bring to an end the excavation of the whole of the 100 acres within the wall, but, as was then foreshadowed, there still remained to be examined the outer defences and the ditch encircling the wall itself. This formed the work of 1909.

It was begun on 21st May, and carried on as uninterruptedly as the weather would allow until 20th November, under the direction of Mr. Mill Stephenson and Mr. J. Challenor Smith, to whom all praise and thanks are due for the patient care and time they have devoted to the work.

The excavations were begun just outside the south-west point of the town by cutting a section through the ditch there and continuing its line directly outwards to and through the outer entrenchment and its ditch, a distance of nearly 1,000 feet. A second cutting through the outer work was made at some distance eastwards of the first, and three others on the north-west of the town, but as all yielded similar results it was not thought necessary to make any more.

The rest of the investigation was devoted to the ditch or ditches encircling the wall. These were cut at a number of points along the north, west, and south sides of the town, in front of the north and south gates, and so far as was possible before the west gate also.

It will be more convenient to deal first with the sections cut through the outer defences.

These remain in a more or less perfect state all round the western half of *Calleva*, but on the east there are no definite remains, possibly through their coinciding with the Roman line of defence. On the north and west the remaining lengths of the bank stand about 6 feet above present level, but on the south there are places where the bank is considerably higher, with a corresponding deeper and wider ditch.

This ditch has been cut in the thick bed of gravel, which, with occasional layers of sand, underlies the whole site, and the excavated material thrown up on the inside to form a continuous bank (fig. 1). Along the west side the ditch was 40 feet wide and 8 feet deep, with a more or less flat bottom about 4 feet across. Owing to the unshifting nature of the excavated material the bank, where undisturbed, practically retains its original contour, but the sections cut did not reveal any traces of palisades or other wooden defences; the outer layers had, however, been much disturbed by a prolonged growth of trees and bushes.

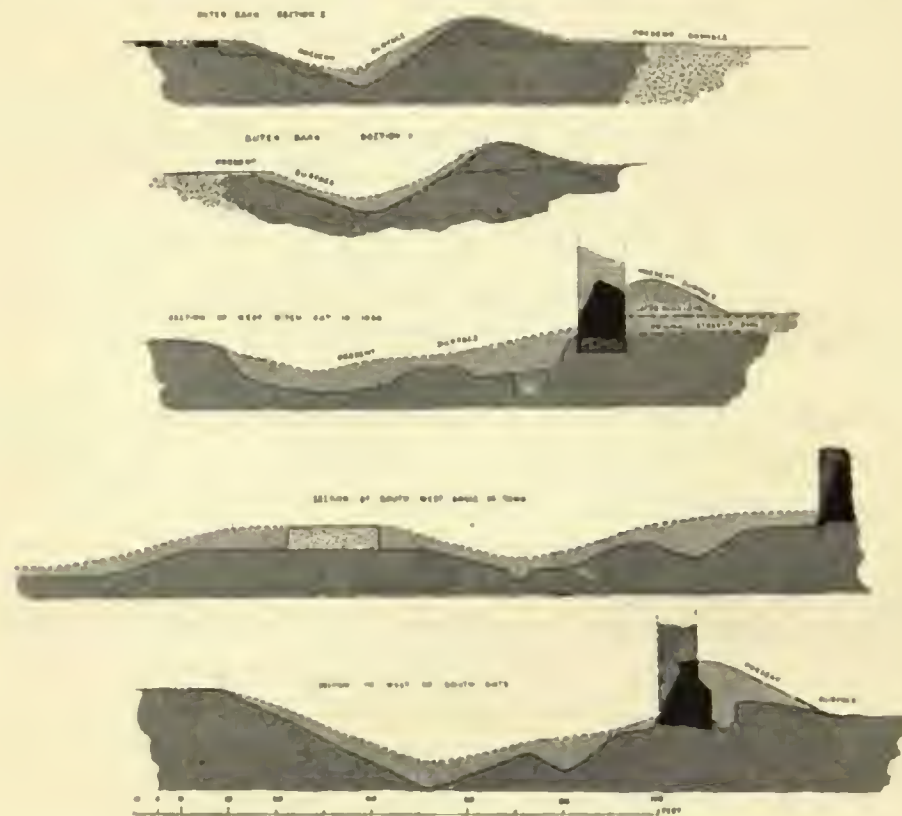


Fig. 1. Sections of banks and ditches at *Calleva*.

The sections were also singularly barren of traces of the people who wrought the work. Nowhere in the bank was anything found to give any indication as to its age, and a few fragments of rotten pottery were all that was found in the ditch.

It has generally been assumed that the entrenchments outside the walled portion of the site are of earlier date than the town defences, but the only clue to the date of the outer bank is afforded by the discovery, a few years ago, by our colleague, Mr. J. B. P. Karlake, in the higher section to the south-west, now called Rampiers, of a number of burials of the Roman period, consisting of urns with cremated remains (see *post*).

It may therefore be taken for granted that the outer works are in all probability pre-Roman, but whether they belong to the Late-Celtic period or even to the Bronze Age there is so far nothing to show. The area they enclosed was a considerable one, with a fair supply of water, and for the most part easily defensible.

The sections made at the base of the town wall on its north, west, and south sides revealed an order of things totally different from the simple continuous ditch and bank of the outer works.

During the excavations of 1896¹ a trench was cut completely through the ditch on the west side, just to the south of the newly discovered lesser west gate (see fig. 1). At this point there was no ledge or berm at the foot of the wall, but

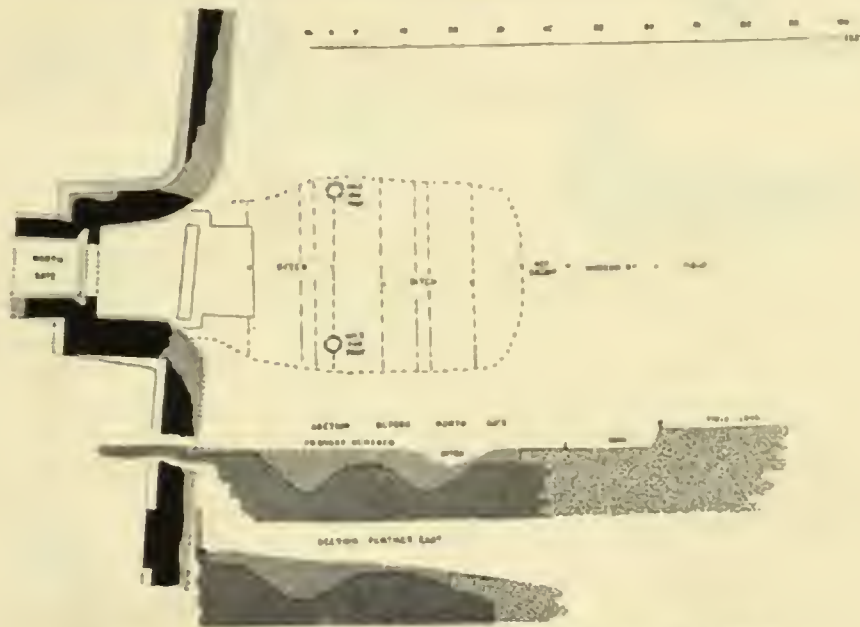


Fig. 2. Sections of the ditch outside the north gate of *Calleva*.

the ditch began almost abruptly at the plinth and consisted of a cutting 26 feet wide, for the most part flat bottomed. There then intervened a sort of broad bank $9\frac{1}{2}$ feet across, and beyond that a somewhat irregularly cut second ditch about 40 feet wide. The total width was about 80 feet, with depths varying from 9 feet in the inner ditch to over 12 feet in the outer. The top of the bank was about 7 feet below the ground level.

Two sections on the north side which were made last year, one in front of the north gate, the other some little distance to the east of it, show the same arrangement of two ditches separated by an intermediate bank, but in both cases there seems to be a distinct berm from 8 to 10 feet or more in width at the foot of the wall.

¹ *Archaeologia*, lv. 427, fig. 1.

A number of sections cut on the western side of the town (see fig. 3) apparently disclosed a similar state of things, but a more careful study of them makes it doubtful whether a berm formed part of the original arrangement. As a matter of fact a little consideration will show that it was impossible, and that such a normal state of things existed at first as in the case of the outer defences.

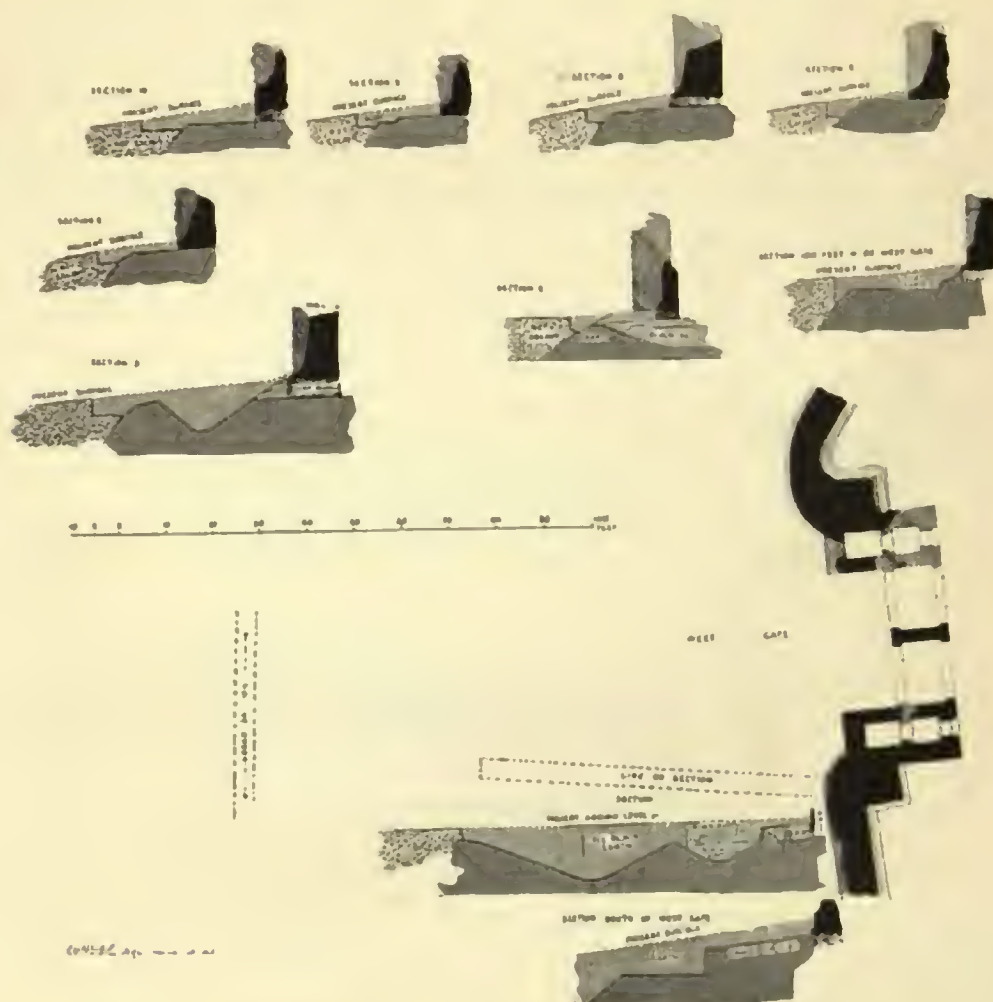


Fig. 3. Sections of the ditch outside the west wall and west gate at *Calleva*.

Now there are good grounds for assuming that when the Romans first made choice of this site for their town, they occupied the whole of the area then enclosed by the outer bank and its ditch, and at an early period, perhaps during the second half of the second century, they built the *forum* and the adjoining *basilica* in the middle of the town at the intersection of the roads that traversed it from east to west and north to south. The few houses of importance that were likewise built seem to have been irregularly dispersed round this centre. But this original area seems to have been deemed too large to be defended

without a very considerable force, and it was decided to confine the buildings of the growing town within an enclosure that could more easily be dealt with. A new line of defence was accordingly drawn within the older earthwork. Towards the south-east a considerable length of the latter seems to have been utilized in connexion with the new defences, but elsewhere the line ran parallel to the older work at such a distance from it as to render the outer bank useless for offensive operations.

According to the normal manner of things the new line would be, and clearly was, formed by cutting a continuous ditch of no great size and throwing up the excavated material on the inner side to form a bank. As in the case of the outer works the ditch was cut entirely in the gravel, which everywhere underlies the superficial vegetable layer.

At no great interval of time after the completion of the new inner line of defence the mound of it seems to have been cut back, and in its place was built a continuous ring of wall. This was $9\frac{1}{2}$ feet thick at the base, lessening by sets-off within to $7\frac{1}{2}$ feet towards the top, and its height could hardly have been less than 20 feet. It was composed throughout of a flint-rubble concrete, with bonding courses at intervals formed by lines of flat stones instead of the more usual bricks or tiles, and was faced outside with dressed flints with a chamfered stone plinth along the base of the wall. Behind the existing remains of this wall, which still form a nearly complete ring, there is a continuous mound or bank.

Now it has already been pointed out that the ditches of both the outer and the inner lines of defence are excavated entirely in the gravel beds, and it follows as a matter of course that the thrown-up banks should be gravel too. But in the case of the inner work the bank against the later wall, wherever cuttings have been made in it, has been found not to be of gravel at all, but of earth containing fragments of Roman pottery. It clearly therefore could not have come out of the ditch. But what then has become of the gravel that unquestionably did? The answer seems a simple one when once it is given, but it is only lately that our newly cut sections have suggested the key to the puzzle. Briefly the answer is this, that the gravel of the inner bank, owing to its sufficiently fine character, was used up while the wall was being built, in the concrete construction of which the wall is so largely composed, and thus we get a massive wall taking the place of the gravel bank.

In many places the gravel bank evidently did not furnish sufficient material for so thick and lofty a wall, and a further quantity was obtained by cutting down the scarp of the ditch which ran along the foot of the rising construction. This then is the explanation of the apparent berm, the top of which, as the sections show, is in several cases some distance below, instead of on a level with the plinth of the wall.

The cutting down of the scarp of the ditch so reduced the value of the ditch itself that it was evidently regarded as useless. It was accordingly filled up with any loose material that was handy and a new ditch cut further away from the wall. This outer ditch is accordingly the only one of which there are outward signs to-day, since its partial silting up is due to ordinary natural causes and not the result of a deposit of rubbish which effectually effaced the ditch first constructed. The material excavated from the later ditch was thrown outwards and spread over the field.

This explanation, if it be found worthy of acceptance, effectually accounts for most of the features observable in our sections, with the exception of one

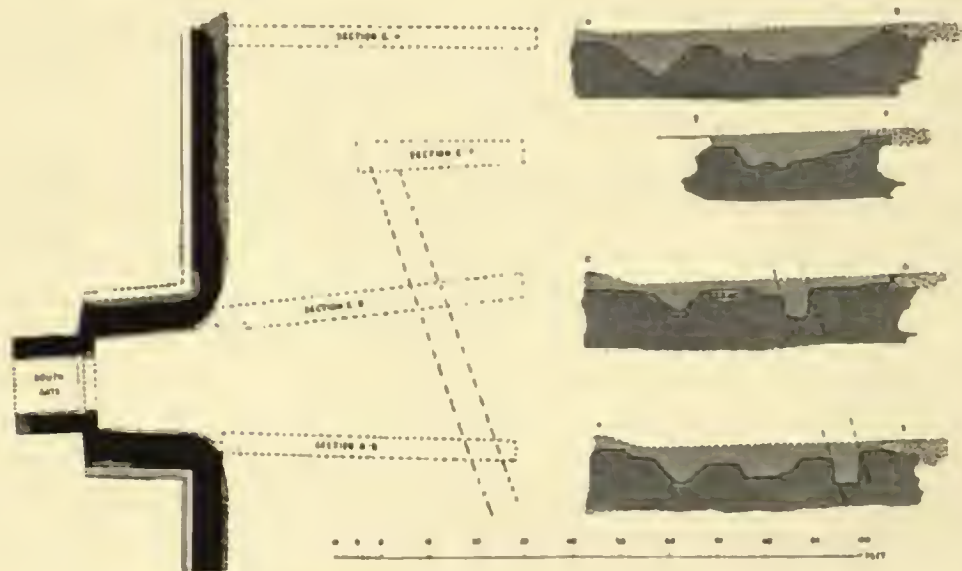


Fig. 4. Sections of the ditch outside the south gate of *Calleva*.

curious case on the west side (fig. 3), and those on the south to the east of the south gate (fig. 4). These latter show clearly enough the V-shaped ditch next the wall, but the outer ditch seems to be unfinished, as though some physical reason made its completion unnecessary. Now a very little further on towards the east we have found that the wall is built upon a foundation of piles, and for a considerable space hereabouts the ground in Roman times, as it is even to-day in wet seasons, must have been more or less boggy. It was therefore probably deemed a sufficient defence to the town without involving the cutting of the ditch, but no further sections have been cut to test or prove this. It may, however, be pointed out that the sections before the south gate have disclosed an interesting feature in connexion with such a theory, in the form of a deep ditch with vertical sides, originally protected and held up by camp-shed-

ding, running obliquely across the roadway that led up to the gate, and on the east side this ends in the incompleted outer ditch. How these ditches were bridged before the south gate nothing has come to light to show. But in the case of the north gate several curious features were revealed. This has, in the first place, on the outer margin of the confined space before the gate itself formed by the turnings in of the wall, a shallow sinking $2\frac{1}{2}$ feet wide and about 20 feet long, and only some 5 inches deep, like a chase for a thick piece of wooden planking. Beyond it there extends forward about 11 feet a gravel platform 20 feet wide with ends sloping downwards and in front of a transverse ditch some 20 feet wide, which had been filled up with earth. In the counterscarp of this ditch, about 3 feet down, was a large loose stone beneath which lay a crushed human skull. In the same counterscarp, and nearly 32 feet apart from centre to centre, were two small pits built round with flints, which were apparently the sockets for two stout vertical timbers. They were from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet in diameter, and about 4 feet deep from the top of the bank north of the ditch. In the ditch itself were also the stumps of a number of posts or stakes from 18 inches to 2 feet apart. Beyond the bank was a second ditch nearly 25 feet wide, almost filled up down the middle with large flints and earth, and towards the south with white gravel. The north part had been disturbed by a modern drain.

Owing to the removal long ago of the big posts that once stood in the inner ditch it can only be suggested that they may have had something to do with a wooden drawbridge, but how this was worked, or which ditch it spanned, is a matter of speculation.

The single trench we were able to cut alongside the southern margin of the road that ran through the west gate revealed much the same section as the others on this side of the town (see fig. 3). That is to say, a filled-up ditch at the foot of the wall, and a second V-shaped ditch beyond, filled up with black earth. The filling up of the inner ditch, on the other hand, consisted of layers of earth, greenish sand, clay, and gravel, upon which was a hard surface like that of a road. This same surface was found in another cutting some 300 feet further south, and there are grounds for believing that it formed an actual roadway from the great double western gateway to the lesser single-arched gate to the south discovered in 1896.

In any case it will be admitted that the ditch about the town was a poor and mean thing, and it is likely that it was cut more with a view to its being a hindrance to a foe bent upon bringing up engines of war against the wall than as a defensive work. No doubt the townsfolk relied much upon the passive strength of the wall itself, as the Romans undoubtedly did at *Gariannonum* (Burgh-by-Yarmouth), *Rutupiae* (Richborough), and *Anderida* (Pevensey).

The bank of earth that ought to have been gravel which lines the remains

of the wall has long been a puzzle, but it may perhaps be accounted for in this wise. There can be little doubt that concurrently with the building of the wall the town was laid out, by streets intersecting at right angles, into a number of rectangular spaces or *insulae*, within which rose the various buildings. These streets were of course at first covered with the original surface layer of vegetable soil, which had necessarily to be removed. Instead of being spread over the adjacent *insulae*, which seems the simplest way of disposing of it, this surface layer seems to have been carted away and thrown up as a bank against the newly built wall.

That the wall and its ditches enclose an area considerably smaller than that first occupied is proved not only by their peculiarities of construction, but by the finding in the ditches themselves of rubbish pits of similar character to those of which so many have been found within the wall. And it is quite clear from their positions that these pits without the wall were sunk before the wall and its ditches were projected. One for example was found in 1896, close to the wall, in the section then cut near the lesser west gate. Another was found last year just outside the north gate, and two others respectively north and south of the west gate. All of these pits have yielded considerable quantities of pottery, and this has a special interest since it may be regarded as unquestionably of earlier date than the wall and ditches.

But the most important evidence in this connexion is afforded by that which came to light in cutting section no. 5 outside the west wall (see fig. 3). In this case the gravel layer usually met with at the foot of the wall rested upon a layer of black matter, which increased in depth towards the wall and eventually passed beneath it. Mixed with the black matter were a certain amount of gravel, bits of red-glazed ware and other pottery, and bones, including a skull and other parts of the skeleton of a horse. In fact there seems to have been at this spot a small pond into which the dead horse had been thrown and which in course of time had got silted up and eventually built over. The effect upon the wall was disastrous: for the lower part for a thickness of $2\frac{1}{2}$ feet had settled down about 4 inches from the upper layers, over the filled-up pond. The weakening of the wall at this point may account for so much, about 5 feet, of its outer face having been removed, perhaps after a fall. Some of the red-glazed ware bears potters' stamps and other evidence by which it can be approximately dated, and thus for the first time we are confronted with material for forming some idea of the date of the wall.

But on these and other points dealing with the pottery those who have had the opportunity of examining it must now tell their tale.

W. H. St. J. H.

The various sections cut through the city ditches yielded but little in the way of pottery or objects and in this respect proved unsatisfactory. Practically nothing was found in the V-shaped ditch and but little broken pottery in the outer or saucer-shaped ditch. Such fragments of pottery as were found were all of the usual types occurring within the walls. No coins or objects were found except at the gates and in section 2, which produced a small broken bronze bow-shaped brooch.

Sections 4 and 5 (fig. 3) on the west side of the wall disclosed the existence of a great black deposit, so were joined up and carried below the foundation of the wall. A cutting was then made in the bank on the inner side and also carried down below the foundation. This proved that the wall itself had been built over an old ditch or pond, the filling up of which was a rank black deposit extending $4\frac{1}{2}$ feet below the foundation, the total depth from the present top of the wall to the bottom of the deposit being 10 feet 2 inches. This black deposit yielded much broken pottery, various objects, and numerous bones. Amongst the objects were a bone needle or bodkin which had been broken and roughly mended by being banded with a narrow strip of lead, several bone pins, and one of bronze, pieces of lead and bronze, metal slag, and half a wooden writing tablet. The bones included dog, pig, and horse; of the latter a fine skull and other bones were extracted from under the wall itself. The pottery included forty-five pieces of red-glazed ware, mostly plain, two bearing the stamps CRACIS. M and LVPPA, several rims of saucers with the so-called ivy-leaf pattern, one with a rivet, and four figured fragments. The other pieces consist of rims, etc. of a hard blue-grey ware, probably local, others of a reddish paste, fragments of *amphorae*, common black ware, and much coarse black ware in the paste of which is incorporated calcined flint, one rim of a large vessel showing rope markings. Similar fragments of pottery were found in the mound itself, and again in section 11 on the north wall, but with the addition of several pieces of the so-called Castor ware and one piece of New Forest ware. A *denarius* of Septimius Severus was found in section 11 on the inside of the wall in the mound and close to the wall at a depth of 6 feet from the top of the mound.

The cuttings in front of the north gate (fig. 2) produced but little pottery, a few coins of late date, Constantine period, and a human skull crushed out of shape by the weight of a large flat stone, apparently a bonding stone from the wall, which lay on the top of it. Just to the east of the gate and close to the wall was found a pit, 20 feet in depth, with a puddled or plastered bottom. This pit was circular, with a diameter of 5 feet at the top gradually diminishing to 3 feet at the bottom. It was cut through the gravel for 11 feet 10 inches and through clay for 8 feet 2 inches. Much broken pottery was found all through, and at

9 feet from the surface two whole pots and a portion of a twisted glass rod about an inch and a half in length.

The sections on either side of the west gate showed the ditches to be continuous, but the approach to the gate could not be examined owing to the modern roadway. Pits were here found cut in the inner or V-ditch, one on the south and one on the north side of the gate. The one on the south side was cut on the inner slope of the V-ditch at 5 feet 6 inches from the ground level; it had a diameter of 4 feet and was about 4 feet in depth, but only began to show when the side of the ditch was reached. It was filled with rough broken pottery, mostly of the coarse black ware with calcined flint in the paste. A large iron brooch was also found here. The pit on the north side, which was 8 feet west from the rounded angle of the wall, was also cut in the slope of the V-ditch, and was 3 feet 6 inches in diameter, with a depth of 9 feet. It proved much richer in objects and pottery, and yielded two whole pots, three bronze brooches, a bronze surgical(?) instrument, a bronze handle, four broken bone pins, a piece of lead, a fragment of millefiore glass, two saggars, one much vitrified, and a white marble object shaped like a brick. Much broken red-glazed ware was also found, including a good many riveted pieces and the following potters' names, CARILLI. O, SECVNDVS, IVSTI. M, OF. CRESTI, also a large piece of an early figured bowl (shape 29) of Lezoux ware, a cup of late first or early second century, a dish with round moulding inside, late first century, and figured ware of early second-century date.¹ A small fragment of marbled red-glazed ware was also found here. The coins found in the trenches at the west gate were again all of late date, the earliest being one of Carausius, the rest of the Constantine and later period. The trenches at the south gate produced the usual amount of pottery, but none of special interest. A silver coin of Trajan, a second brass of Antoninus Pius, about two dozen coins of the Constantine and later period, mostly in very bad condition, and a round bronze enamelled brooch were found in the various sections.

The cuttings through the great outer earthwork in Rampiers Copse were equally unsatisfactory as regards objects. The first cutting produced practically nothing except a few fragments of pottery, all of which may be regarded as surface pieces, as the mound is riddled with badger and rabbit holes. The second cutting was also unproductive, but on its northern face nearly at the base was found a hole ringed with flints, the floor covered with burnt ash, and filled with broken pottery, no two pieces of which would join together. The pottery was examined by Mr. Reginald Smith, who was of the opinion that it showed British influence from the cordons and profiles, and was probably of the first century, except one red base, which may be imitation Gaulish(?) of the third century. On

¹ From information kindly given by Reginald A. Smith, Esq., F.S.A.

the southern face of the mound were indications of a cremation, a platform having been cut in the side of the mound for the reception of the body. On this platform was a layer of wood ashes in which were calcined bones and numerous fragments of bronze burnt out of all shape. The sides of the mound were cut down in the hope of finding an urn, but without any result. The ditch outside the mound, although carried down to a depth of 11 feet, yielded nothing but a few fragments of coarse sandy pottery, very decayed and rotten.

The three sections through the outer earthwork on the north-west side of the city were unproductive; a few fragments of pottery were found on the edges and a few in the ditch, but none call for special remark.

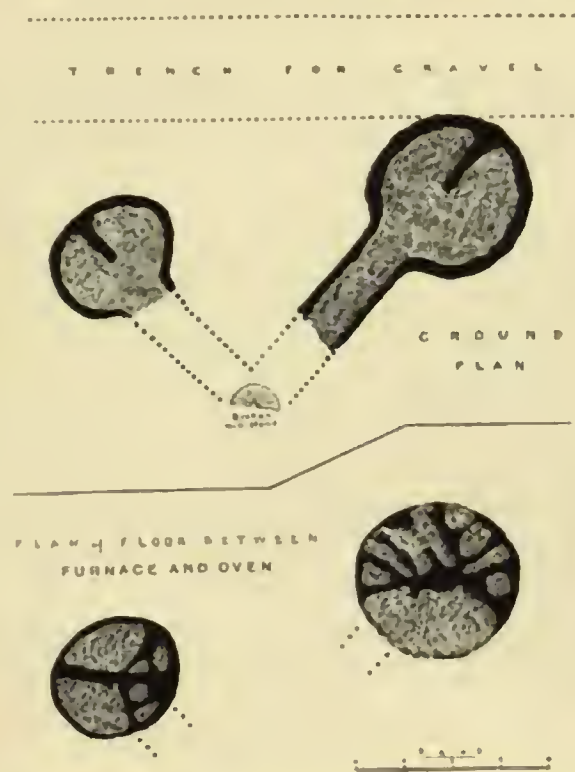


Fig. 5. Plans of potters' kilns found to the north-east of *Calleva*.

In conclusion it may be added that the wet season of 1909 rendered the work of excavation in the ditches and mounds very difficult; as fast as they were dug out they filled with water, which gradually undermined the sides and caused a collapse.

In November, 1906, the tenant of a field on the north-east side of the city, being in want of some gravel, dug a hole in his field, and during the work struck the edge of a hard substance. On hearing of this, Mr. J. Challenor Smith and I offered to have the gravel dug for him, the result being the discovery of two potters' kilns (figs. 5 & 6). Mr. Clement Reid had already warned us that potteries

would be found in this direction, if in any, owing to the presence of suitable clay. The kilns, which were about 2 feet below the present surface level, are of very rough workmanship but of the usual construction, being sunk in the gravel with the walls, etc. made of clay. In the clay can still be seen the impress of the grass and ling which were used to bind it together.

Kiln no. 1 was roughly circular in shape, with an outside diameter of 3 feet 6 inches, and an internal one of 2 feet 8 inches, the thickness of the outside walls being 5 inches. It consisted of a floor, a flue for heating, and a diaphragm or table supported on a pedestal and pierced with some nine or more holes of irregular shape. When first exposed a portion of the side of the dome remained *in*

Kiln no. 2.

Kiln no. 1.



Fig. 6. Potters' kilns found to the north-east of Calleva

situ, but it gradually crumbled away. The dome was composed of a mixture of clay and broken pottery, faced outside and strengthened by the addition of broken pot lids, evidently wasters kept for this purpose. The floor of the kiln gradually dropped towards the mouth of the flue, the height of the aperture through the wall to the flue passage being 15 inches, only 1 inch below the table. The flue extended outwards for about 2 feet 6 inches, the width of the passage being 11 inches, and the thickness of its walls about 2 inches. It had been domed throughout, but only a very small portion remained intact. The passage was covered with black wood ash, and traces of similar ash extended some feet beyond. The table was 16 inches above the floor level, and was of an average thickness of about 6 inches. It was supported on a pedestal which

faced the entrance to the flue, thus allowing the free use of the ash-rake. The table itself was pierced with nine or more holes, but was very irregular and much broken in places. The holes varied considerably in size, being from 4 to 12 inches in length, and from 3 to $5\frac{1}{2}$ in width. The total height of the kiln was about 3 feet 4 inches.

Kiln no. 2, which was nearly at right angles to no. 1, was more of an oval shape, being 2 feet 10 inches in length by 2 feet 2 inches in width. In construction it resembled no. 1, but was much more broken and damaged. The height from the floor to the table was 20 inches, the inside width of the flue 10 inches, and the thickness of the flue walls about $2\frac{1}{2}$ inches. The thickness of the outside walls and of the table corresponded with those of no. 1.

A considerable quantity of broken pottery was found in and around the kilns, but much was surface stuff such as is found anywhere on the fields within a radius of a quarter of a mile from the walls. In kiln no. 1 were found four wasters of a hard blue-grey pottery, as well as the greater portions of two dishes, sundry pieces of basins, and many fragments of broken pot lids similar to those used to strengthen the dome, all of which were of a sandy texture. The blue-grey pottery is such as may be made anywhere where suitable clay exists, but the sandy texture ware appears to be peculiar to Silchester. Not much of this pottery has been found on the site, probably owing to its friable nature, but perfect specimens of the dishes and bowls are in the Silchester collection in Reading Museum.

Kiln no. 2 produced only one perfect vase and one dish, both found in the furnace flue. The dish is of a coarse red ware, much resembling the stand for a modern flower-pot. The vase is of a yellowish-brown paste, and is slightly ornamented on the upper portion.

The only other objects found were a bronze bow-shaped brooch and half a millstone.

Thanks are due to Mr. J. Challenor Smith, not only for his assistance in the excavation, but also for an excellent series of photographs illustrating the progress of the work.

M. S.

Note on Discoveries in the outer Entrenchment. By J. B. P. KARSLAKE, Esq.,
M.A., F.S.A.

The outer entrenchment was made use of as a burial ground, probably by the native British inhabitants of the poorer class. In that portion of the entrenchment situate in Rampiers Copse, burials seem almost continuous on the inner slope of the mound, and, as this year's section shows, they also occur on the outer face.

Those excavated are usually similar in character, although, owing to the disturbance of the soil by badgers and rabbits and those who have for many generations endeavoured to dig these latter out, in most cases they have not been preserved in any way intact.

The following is a description of a burial excavated in 1900, and may be taken as typical of the rest:

The original surface-indication consisted of a group of flints, a small heap of six or seven, and among them a portion of a square glass bottle. At some 3 feet 4 inches below was a cinerary urn of grey ware and distinctly Roman type, obviously a waster from its irregular shape. The urn stood upright, and as found was without cover. It was partly filled with sand and incinerated bones.

From 6 inches to 1 foot below the urn, and extending for a distance of 6 feet 4 inches south of the urn and over a space 4 feet 6 inches wide, were scattered large nails; some fused out of shape, others with portions of wood still adhering to them, the surrounding earth being burnt and discoloured and containing much charcoal.

At a point 6 feet 4 inches south of the urn and 11 to 16 inches below its level a number of hobnails, some single, some in "threes", were found in a patch about 6 inches square.

Among the burnt earth were the charred teeth of ox and remains of a jaw-bone and a few fragments of coarse black ware.

From the surroundings of this burial it was clear that the method of burial had been as follows. The lower end of the bank had been dug away until a face about 4 feet 6 inches was left. Against this perpendicular face a fire of logs was made, and on this the corpse extended on a wooden bier and clothed was laid. When combustion was completed the fragments of bone were collected and placed in the urn in the position occupied by the head of the corpse and the earth thrown back until the original slope of the mound was restored and all trace of fire and charcoal buried beneath it.

Another feature in connexion with the outer entrenchment may be mentioned. When cutting a section through the mound and ditch some time since, a strong spring of water was encountered at the foot of the mound. This had no doubt caused some trouble to the original builders, as it necessitated some form of retaining wall. This was constructed in the escarp of the ditch of two lines of wicker hurdling 12 inches apart, the wicker-work being supported at intervals of about a yard by stout stakes of split oak and alder, the space between the wattling being rammed tight with clay puddle.

The wattling was composed of uprights of willows about 1 inch thick and 4 inches apart, and longitudinally similar sticks were twisted at 4 inch intervals. And into this framework thin osiers, many with the leaves and twigs remaining, were entwined.

Besides this retaining wall a sort of tank, 8 feet long and about as broad, was formed to retain the water of the spring by a similar construction of clay and wattle. This had at an early period been thrown down by a fall of soil from the bank above, and on the wicker-work was embedded a fragment of red-glazed ware, which goes to show that the decay of the structure took place in Roman times.

The western entrance to the outer work was at the site of the field gate to the north end of Rampiers. It was protected by a crescent-shaped outwork. The original roadway passed round this outwork and ascended by a fairly steep slope over the inner embankment.

This road was 10 feet broad, formed of a mixture of red gravel-stones and clay. It was later buried under the Roman road which led from the south-west gate. This road is 30 feet broad, and to accommodate it the inner and outer earthwork had been levelled down to form an even grade by which the road descended to the lower ground, showing clearly that at the date of the construction of the Roman road no importance was attached to the outer entrenchment as a defensive work.

The space between the outer entrenchment and the wall was occupied, certainly during the latter period of the existence of the city, by native habitations unequally placed and approached by gravel paths.

The usual type of hut seems to have been round, about 14 feet in diameter, with a central hearth of flints or large tiles. Round or in front of the fire a basin-shaped hole was dug, about 2 feet deep and 3 feet 4 inches in diameter, and lined with clay; this was no doubt used to contain the hot ashes and acted as a sort of oven. The houses were constructed of clay and wattling, but except for some post-holes and a line of loose flints nothing now remains.

There were, besides the round huts, rectangular houses, but little trace is left to form any detail plan of the size. In the case of these houses an angle or

corner seems to have been occupied by the fire, the house being built up at this point with flints, no doubt to prevent a conflagration, and in one case distinct traces of a clay and wicker chimney or flue about 3 feet 4 inches in diameter were found among the débris of the hearth.

In conclusion it only remains to point out that the Silchester Excavation Fund, having done its work, is now closed, and will shortly be wound up. Had the opportunity been afforded it the Executive Committee was anxious to include in its investigations the so-called amphitheatre on the north-east, with the possible remains of a *nymphaeum* close by, and to examine generally the ground between the inner and outer defences to the north of the town, but the necessary permission to do this could not be obtained from the owner of the land, Mr. J. H. Benyon. By way of contrast to this, our only refusal, may be mentioned once more the unhampered facilities so freely and courteously accorded by both the late Duke of Wellington, and his successor the present Duke, who fortunately owned the whole of the area we have been able to excavate. We have also to express our cordial thanks to Mr. Edward Cooper and Mr. Thomas Lush, successive tenants of the land, for the kind way in which they all along have met our wishes. For leave to excavate last year in the ground beyond the Duke's property on the west and south-west we desire to express our indebtedness to Mrs. Thorold.

XIV.—*The Discovery of Prehistoric Pits at Peterborough*, by G. WYMAN ABBOTT, Esq.; and *the Development of Neolithic Pottery*, by REGINALD A. SMITH, Esq., B.A., F.S.A.

Read 30th June, 1910.

1. *Prehistoric Pits at Peterborough.*

THE series of relics exhibited to the Society come from an early settlement at Peterborough, dating from a time when flint was in general use, perhaps before the introduction of metal, at least among the poorer inhabitants of the country. The site is a promontory rising out of the Fens and lying on the north-east side of the town. The river Nene joined the Fens about half a mile to the south-west of the site, which is only a few feet above sea-level, and was almost surrounded in times of flood. So far as can be determined at present, the extent of the settlement is several acres, but the ground has not yet been moved except on the west side, where unfortunately no observations were taken. There were no surface indications of human habitation, and no burrows noticed on the promontory or in its neighbourhood. The subsoil is gravel, fine and coarse, varying in depth from 8 to 10 feet. The top 18 inches of gravel, underlying the soil, is reddish brown, mixed with a reddish loam, which sometimes occupies natural pockets 3 to 8 feet deep, cutting down through the gravel and at times reaching the cornbrash below.

The discoveries have not been systematically made, but occurred during excavations for sand and gravel; hence many relics have been destroyed or lost by the workmen, who considered potsherds of no interest or value. During my enforced absence from the site many pits have no doubt been obliterated, and no record made of their position, character, or contents.

The settlement consisted of many pits sunk in the reddish loamy gravel and in the underlying gravel stratum, the depth ranging from 2 to 6 feet and the diameter from 3 to 14 feet. The shapes are irregular, but the majority are practically circular, the smaller pits having steep sides and flat bottoms, and the larger being fairly shallow and flat-bottomed or else deep and V-shaped (fig. 1). The average example would be a circular excavation about 10 or 12 feet in diameter at the top, $3\frac{1}{2}$ to 4 feet deep, and saucer-shaped

like the ordinary hut-circle, such as those on Hayes Common described by Mr. Clinch.¹ In two cases I observed that the saucer-shaped depression was in close proximity to a V-shaped pit some 6 feet deep: they were within 5 feet of one another, but otherwise not visibly connected in any way. If contemporary, the larger may have been a dwelling and the other a store-pit. When found together the former usually contains a dark layer of ashes about 4 inches from the bottom, and from 2 to 4 inches thick: this deposit and a quantity of burnt stones found near it indicating the site of a hearth.

The other common type of pit is steep-sided and flat-bottomed, $4\frac{1}{2}$ feet in diameter and $2\frac{1}{2}$ to $3\frac{1}{2}$ feet deep. All the pits found contained remains of charred wood, and many had burnt pot-boilers, flint flakes, and scraps of animal bones; but nothing of more definite character has been found in the majority, though the form is exactly the same as those that produced the potsherds, and the dark soil is common to both.

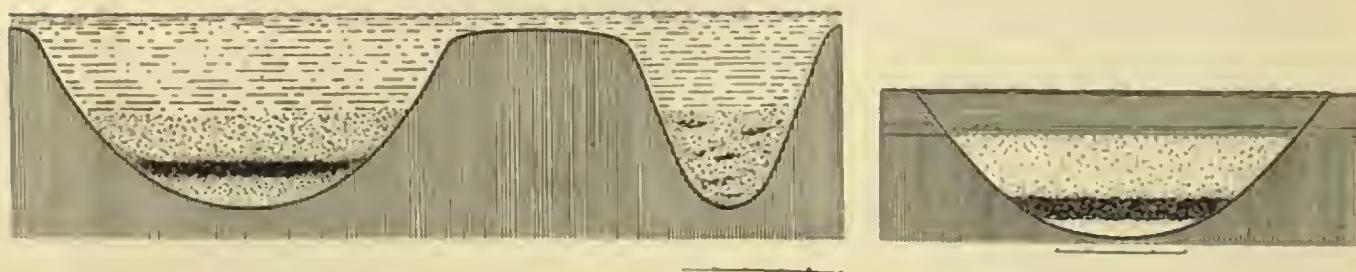


Fig. 1. Diagrammatic sections of pits, and pit no. 1, Peterborough.

The most interesting pit (no. 1) lay at the south-west limit of the settlement, on the edge of the plateau. It seemed to be circular with a diameter of about 12 feet, the depth in the centre being 4 feet. The sides sloped gradually inwards and were of the usual saucer-section. Part of the pit had been destroyed before its nature became apparent, and valuable evidence was no doubt lost, but it was seen to be filled with blackish earth down to 8 inches from the bottom, where it gave place to a greyish black layer that seemed to be composed of decayed animal or vegetable matter. The line of division was not very definite or regular. Below the grey stratum was a hard gravel floor resting on but distinct from the undisturbed gravel. Throughout the black and grey filling were scattered small pieces of charred wood and ashes, also pottery fragments, though these were chiefly found at the base of the black layer and in the greyish matter below. All the fragments had evidently been thrown in that condition into the pit, or been thoroughly broken and mixed up before the pit

¹ *Journal of Anthropological Institute*, n. s. ii. (1899), 124.

was filled in. Scattered throughout the pit were also many flints, which may be classified as follows:

- | | |
|---|--------------------------|
| 1 small barbed arrow-head | |
| 3 roughly made saws | |
| 10 small knives | } (pl. XXXVIII, fig. 1). |
| 35 scrapers, $\frac{1}{3}$ inch to $1\frac{1}{2}$ inches long | |
| 20 cores, possibly slingstones | |
| 300 or more unworked flints. | |

Several pieces, both worked and unworked, bore traces of contact with fire. They were all made from nodules obtained in the local gravels, and are mainly greyish or black. There is a marked absence of patination, all being dull as if recently chipped, in contrast to those found on the surface in this locality.

The only bone implement found was a pin 4 inches long, made from the bone of a pig. There was also a single clay slingstone¹ of rough material baked red, $1\frac{1}{4}$ inches long and $\frac{3}{4}$ inch in diameter (fig. 2). Pot-boilers to the number of 300 were found, the majority being imperfect owing to the action of heat. Most were of quartzite or sandstone pebbles from the gravel, and varied in size from 2 to 4 inches. Several lumps of baked clay, mixed with quartz or flint grit, may have been prepared for pot-making, or possibly formed part of the wattle-and-daub walls hardened by fire. In the black soil were also several small lumps of soft greenish buttery clay, containing no extraneous matter. Both in the grey and black filling were scattered bones of birds and horse, red deer, pig, and many smaller animals, the larger being all split for the extraction of marrow. Many were charred or burnt, and several had been gnawed by animals. Nutshells also occurred in the grey layer at the bottom of this pit.



Fig. 2.
Clay sling-bolt,
Peterborough. †.

Most of the potsherds belonged to the so-called drinking-cup or beaker class, but the vessels varied considerably in size, and some attained extraordinary dimensions, the largest that can be theoretically restored being over 9 inches wide at the mouth, and about 11 inches in height. These fragments are, as usual in this type of ware, highly ornamented, the designs consisting of squares, bands, lozenges, and triangles of incised and dotted lines, the paste being coarse and gritty or fine and hard, but always comparatively thin.

Several small fragments of neolithic pottery were found, but exclusively in

¹ These seem generally to date from the Early Iron Age, and many were found at Glastonbury. Examples are also known from Wilts. (*Wilts. Arch. Mag.* xxvii. 287); Highfield, Salisbury, and Hod Hill, Dorset; also Mt. Caburn, Lewes (*Archæologia*, xlv. 467, pl. xxv. fig. 47); and an angular pattern has been found at Wonerish, Surrey (*Surrey Arch. Collns.* xxii. 199).

the greyish soil at the bottom of the pit no. 1. The paste is usually rough, hard, and gritty, mixed with ground flint, which shows up against the black or dark brown body. The fragments belonged to a round-bottomed bowl ornamented on the upper part, like one found in the Thames at Mortlake, and now exhibited in the British Museum. Similar fragments were found in a long barrow at West Kennet, Wilts., and are in the same collection, and I myself found a vessel of the same character about 100 yards from the site of the pit-dwelling just described.

There were also two fragments of brownish yellow ware, the paste fairly soft, which belonged to the rim and side of a second round-bottomed neolithic pot. The ornamentation consisted of a double herring-bone line, and extended also along the top edge.

Several fragments of a hard black paste were ornamented with lines of impressions of the finger-tip, and were peculiar in having the lip turned inwards (fig. 9), the ornamentation also extending to the rim.¹

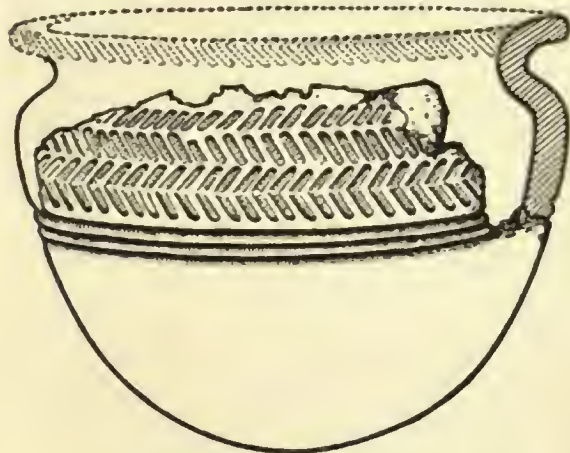


Fig. 3. Neolithic bowl, Peterborough. $\frac{1}{2}$.

The round-bottomed neolithic bowl exhibited (fig. 3) has been already mentioned as found in the vicinity. It lay in the black filling of one of the larger excavations before described. Nothing was noticed in actual association with it, but flint flakes and scraps of pottery (including a piece of a thumb-marked drinking-cup) were found just below the top soil in close proximity to this pit. The vessel is of hard gritty ware with large pieces of flint incorporated. It is $\frac{1}{2}$ inch thick in places, and of a brownish black colour. The rim is lost, and the decoration consists of a double line of herring-bone pattern impressed in the clay before baking by means of a notched stick or bone, in the characteristic neolithic manner. It closely resembles in shape the Mortlake specimen (pl. XXXVII, fig. 3); and in colour, material, and ornamentation another vessel found in the Thames at Putney and now in the Edinburgh Museum.

So far as can be ascertained from fragments found in pit no. 1, the beakers varied in size considerably; the largest being about 11 inches high, about 9 inches wide at the mouth and practically the same across the shoulder, and the smallest (pl. XXXVII, fig. 1) about one-third these dimensions. The larger vessels of this type were usually of coarser paste, ornamented in what seems to be the earlier

¹ This type is mentioned by Lt.-Gen. Pitt-Rivers in his *Excavations in Cranborne Chase*, iv. 163, and by Mr. J. R. Mortimer in his *Forty Years' Researches in Yorkshire*, 103.

style, viz. finger-nail and punch markings, though the finest beaker style is also represented, consisting of zones of oblongs, triangles, and lozenges of incised and dotted lines. On some fragments, as again at West Kennet (fig. 7), both styles occur together, the herring-bone pattern and punch-marks being thus shown to have been used by the same potter. A semi-circular punch-mark, produced by impressing a half-cylinder of bird's bone or reed, is found on one of the Peterborough pieces (fig. 4, D), and seems to be of the rarest occurrence elsewhere. The oldest design appears to be the herring-bone, made with a small notched piece of wood or bone, the notches being small and fine, but the impressions somewhat roughly made: this pattern is characteristic of the round-bottomed bowls.

The next pattern in point of time seems to have been made with the finger-nail or a punch, and consists of rows of impressions with intervening plain zones, or covering the entire surface (pl. XXXVII, and fig. 8). Though found occasionally on the neolithic bowl, this seems to belong more properly to the earliest beakers of the transition period.

The last series of designs occurs on the fully developed and highly ornamented beakers which have been specially studied by the Hon. John Abercromby (see *post*); and no patterns that could be assigned to a subsequent period occurred in the Peterborough pits.

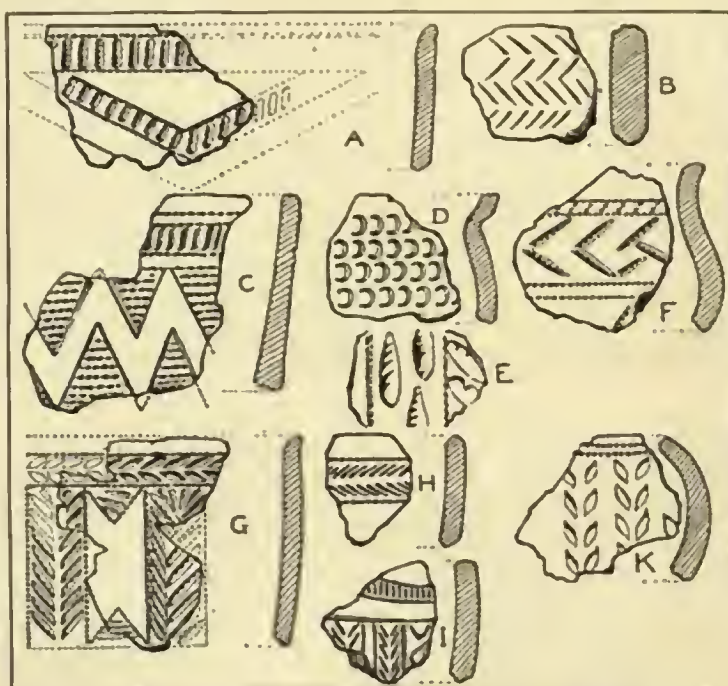


Fig. 4. Patterns on drinking-cups, Peterborough. $\frac{1}{2}$.

From these potsherds the date of the settlement can be fixed at the end of the neolithic period, when the first invasion of which we have any tangible evidence was taking place. The new-comers introduced the beaker or drinking-cup, and landing on our eastern shores, conquered and drove inland the aboriginal dolichocephalic population. Possibly some of the roughest beakers (fig. 8), which retain neolithic designs such as the finger-nail patterns, were produced by some who remained on the east coast as the slaves of the conquerors; and this is all the more likely if, as is likely, pot-making was woman's work.

The position of the Peterborough pits on the first high ground overlooking the Wash is quite in keeping with this theory; and the type of beaker is quite



Fig. 5. Fragments of drinking-cups, with sections, Peterborough. 4.

as early as any found elsewhere in Britain. Other specimens of the same early type have been discovered on islands in the Fens, one from Ramsey, for instance, being in the Peterborough Museum. One of the chief results of an examination of the Peterborough pits is undoubtedly the proof afforded that the drinking-cup was not exclusively for funeral purposes, but was also intended for domestic use even when highly ornamented and carefully finished. Further, the distribution of the sherds in the pits showed that the latter were merely kitchen-middens, and the vessels were broken and scattered before they came into the pits in the first instance.

Two excavations of the smaller kind were found about 100 yards north of pit no. 1, about 3 feet apart and containing fragments of three drinking-cups embedded in the black filling. They were all highly ornamented in the usual style and of a fine though somewhat soft red paste; but nearly all were destroyed by exposure for some months to the weather.

To the north-east of these pits a complete cinerary urn was found upright 2 feet below the surface in a small hole. The contents consisted, so far as I can ascertain, of the black loamy soil that filled the excavation. The urn is of the usual type, 7 inches high and $4\frac{1}{2}$ inches across the mouth, of red paste, well baked and ornamented on the lip with cord pattern. No cremated bones were found in it nor elsewhere on the site, so far as my information goes; and there was no outward and visible sign of a burial.

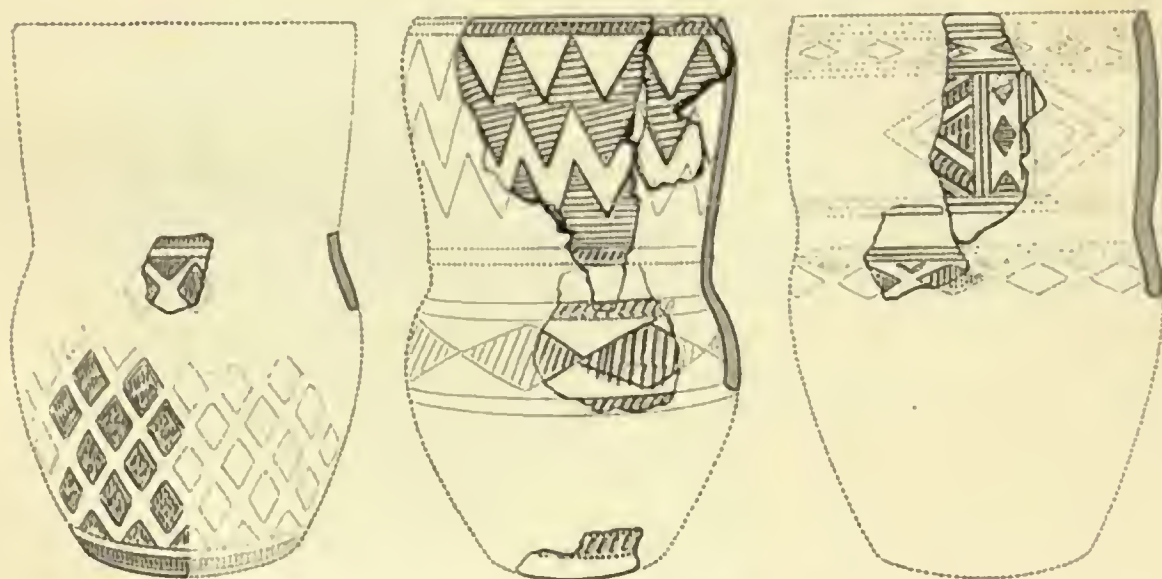


Fig. 6. Fragments of drinking-cups, with sections, Peterborough A.

II. *The Development of Neolithic Pottery.*

THE outstanding feature of Mr. Abbott's discoveries at Peterborough is the occurrence in close association of two classes of pottery that can be clearly distinguished. The rounded base has long been regarded as a leading characteristic of neolithic pottery in Scotland, and the exploration of cairns in Arran by Dr. Thos. Bryce¹ leaves little doubt on the subject. But perhaps the closest parallel in that area to the particular form under discussion was found in the north chamber of a cairn at Achnacree, Argyleshire,² without any other indications of a burial. In the south chamber was found a somewhat similar bowl, with cylindrical body and rounded base, recalling the profile of an Irish specimen in the British Museum (pl. XXXIX, fig. 1). An attempt will be made in what follows to show that this similarity is not accidental; and it is the Peterborough find, in conjunction with certain isolated discoveries, that suggests an origin for the large class of Bronze Age sepulchral pottery known as "food-vessels".

There has recently been added to the national collection a thick and heavy bowl of blackish pottery that was found in the bed of the Thames at Mortlake (pl. XXXVII, fig. 3), below a thin calcareous layer that seems to have sealed up some early deposits of flint and human bones as well as pottery. The height is 5.1 in. and the body is practically a hemisphere 6.9 in. across, with walls 0.3 in. thick, surmounted by a deep hollow moulding and a spreading lip; ornamented on the top and outer face of the rim with transverse incised lines, and below the shoulder with a band of herring-bone pattern, the impressions being made in the clay before firing with a twisted cord or thong, and the transverse markings being sometimes very fine and closely set (fig. 3). The lower part of the bowl is left plain, but this was not invariably the case in vessels of this character. A fragment found in association is of gritty paste with a fine black surface and grey core. The maximum diameter would be 10 in., and the height (if in the same proportion) 7.4 in., the body being 0.4 in. thick at the shoulder. There is cord pattern in parallel lines outside the lip and within to a depth of 1 in., also on the shoulder, below which are two rows of finger-nail pattern between double rows of corded chevrons.

It is important to add that on the same site and beneath the same calcareous seam was found a large and practically complete specimen, 9.6 in. high, of a well-known drinking-cup type (pl. XXXVII, fig. 2), called *a* by Mr. Abercromby,

¹ *Proc. Soc. Ant. Scot.*, xxxvi. 135, with figs.; see also *Journal of Anthropological Institute*, 1902, new ser. v. 398.

² *Proc. Soc. Ant. Scot.*, ix. 414, pl. xxiv. fig. 2 (7 × 4 in.). The other type (fig. 1) resembles one from Bute figured in vol. xxxviii. 48, fig. 20 (diam. 5 in.). Cf. Anderson, *Scotland in Pagan Times: Bronze and Stone Ages*, 271.



Fig. 1. Drinking-cup, Peterborough. $\frac{1}{4}$



Fig. 2. Drinking-cup, from Thames at Mortlake. $\frac{1}{8}$

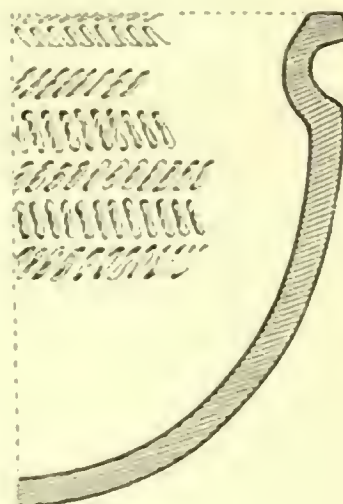


Fig. 3. Neolithic bowl with section and details, from Thames at Mortlake. $\frac{1}{4}$

and another of his type β , 5.3 in. high, covered with horizontal cord-markings. The association is rendered practically certain and all the more important by the discovery of type α and neolithic ware in considerable quantity in the Peterborough pits. Though on both sites there may have been some interval of time between the two classes of ware, it is now clear that they were made and used by dwellers on the same spot, living apparently under the same conditions; and an explanation of the presence of two distinct but practically contemporaneous types in the same area now seems to be possible. It is first, however, necessary to bring together examples of the thick and coarse blackish ware that can be safely classed with the Mortlake bowl and the lower finds in the pits at Peterborough.

The accompanying illustrations of two perfect specimens brought up in a net from the Thames at Mongewell, near Wallingford (pl. XXXVIII, figs. 2, 3), are from photographs kindly supplied by Mr. G. W. Smith, who has the originals in his collection and states that one is $4\frac{3}{4}$ in. high and 6 in. in diameter, the other $3\frac{1}{2}$ in. high and 5 in. in diameter. Four specimens therefore, at least, are known from the Thames; and there is sufficient evidence to prove that the type is not confined to the South of England.

Our Fellow Mr. John Ward found in Rains Cave, Longcliffe, Derbyshire,¹ enough of a round-bottomed bowl to determine its original appearance and dimensions, and gives the following description: "Diameter about $8\frac{1}{2}$ in.; paste coarse and reddish, hand-made, variable in thickness, but generally thicker at the bottom than elsewhere. From the obvious discoloration of the lower parts externally and traces of smoke, we may safely conclude that it was used as a stew-pot. The shape is admirably adapted for this purpose. When placed in the embers of a fire its rounded shape would prevent fracture, and in this respect it is an anticipation of the flasks and dishes of the chemists. The paste of these hand-made vessels was mixed with crushed calc-spar, which is common in the district and scarce elsewhere; from which we may infer that they were made in the locality." The illustration shows the rim alone ornamented, and on the same plate, fig. 4, is a fragment of a vessel with parallel cord pattern, the paste being thick and blackish. As an indication of date it may be mentioned that wheel-made pottery and iron were found in this cave, but no bronze, which is all in favour of the rougher pottery being neolithic.

An interesting find very much to the point is due to Mr. J. R. Mortimer,² who for nearly half a century has been excavating in the East Riding of Yorkshire. Under one end of a true long barrow at Hanging Grimston was found

¹ *Journal of Derbyshire Arch. and Nat. Hist. Soc.*, xi. (1889), 39, pl. ii. fig. 3. The height would be about 6 in.

² *Forty Years' Researches*, 103, pl. xxxi. fig. 248.

a subterranean dwelling that had evidently been destroyed by fire; also four shallow round-bottomed vessels of plain ware with diameters of 12 to 13 in. and depths varying from $3\frac{3}{4}$ to 6 in. The shapes are not identical with the type under discussion; but the discovery of four domestic specimens, evidently earlier than a long barrow that was not wholly explored but probably contained burials, is certainly instructive. In the same Riding, Dr. Greenwell¹ has found round-bottomed bowls very similar to those from Scotland, but not decorated and of palish brown clay, anything but heavy. He also mentions the occurrence of dark-coloured plain pottery, presumably the remains of domestic vessels, as common in the Wold barrows. These are, however, so fragmentary that no reconstruction has been possible, though from the curvature Dr. Greenwell concludes that many of the vessels were round-bottomed.

A curious pottery vessel referable to the same period was found by Bateman in an interesting barrow opened in 1843 near the village of Biggin, Derbyshire. The find has since been published in another connexion by Hon. John Abercromby,² but the original illustration³ gives a better idea of the vessel than the recent photograph. It was found on a small heap of neolithic flint implements in association with a human skeleton, the knees drawn up and the skull having an index of 74.3 (dolichocephalic). The cylindrical neck broadens out below to a projecting fillet, beneath which is a hollow moulding and a hemispherical body. The ornamentation consists of bands of short incised lines and herring-bone pattern, the whole being 4 in. high and $2\frac{1}{2}$ in. in diameter at the widest part. Bateman commented on its novel and unprecedented shape, and drew particular attention to the absence of metal here in any form.

The late Gen. Pitt-Rivers had a shrewd suspicion that much of his no. 1 quality British pottery was neolithic. Wor barrow, which he definitely assigned to the long-barrow period, produced a number of long skulls, and some pottery fragments⁴ that evidently belonged to round-bottomed bowls exactly corresponding to that from Mortlake (pl. XXXVII, fig. 3). More came from barrows at Handley in the same neighbourhood, and his comments on the ware should be read in this connexion.

The most significant find of this class of pottery in England was published by this Society in 1860, with copious illustrations.⁵ Under the auspices of the Wiltshire Archaeological and Natural History Society, Dr. Thurnam opened a chambered

¹ *British Barrows*, 143, fig. 91 on p. 107.

² *Man*, 1906, no. 44, fig. 5.

³ Thomas Bateman, *Vestiges of the Antiquities of Derbyshire*, 43. Most of the find is now in the Sheffield Museum.

⁴ *Excavations in Cranborne Chase*, iv. 67, pl. 261, fig. 17; see also fig. 10, and pl. 246, figs. 2-7; pl. 298, fig. 8; pl. 304, fig. 7; remarks on p. 163.

⁵ *Archæologia*, xxxviii. 405.

long barrow at West Kennet, near Avebury, and found skeletons with elongated skulls, flint implements, and three heaps of pottery, specimens of which are now in the British Museum, and include four rim fragments of different vessels with the characteristic hollow moulding below the lip, of thick ware ornamented in the usual way with the finger-nail, impressed cord, pointed stick, etc. (fig. 7). Two fragments figured by Thurnam¹ are quite distinct from the rest, of black and brown colour, and obviously of later dates. One is part of a black pottery dish with several round holes in a flat base, the original dimensions being $5\frac{1}{2}$ in. diameter at the mouth, and 4 in. at the base, the wall being 2 in. high. A com-

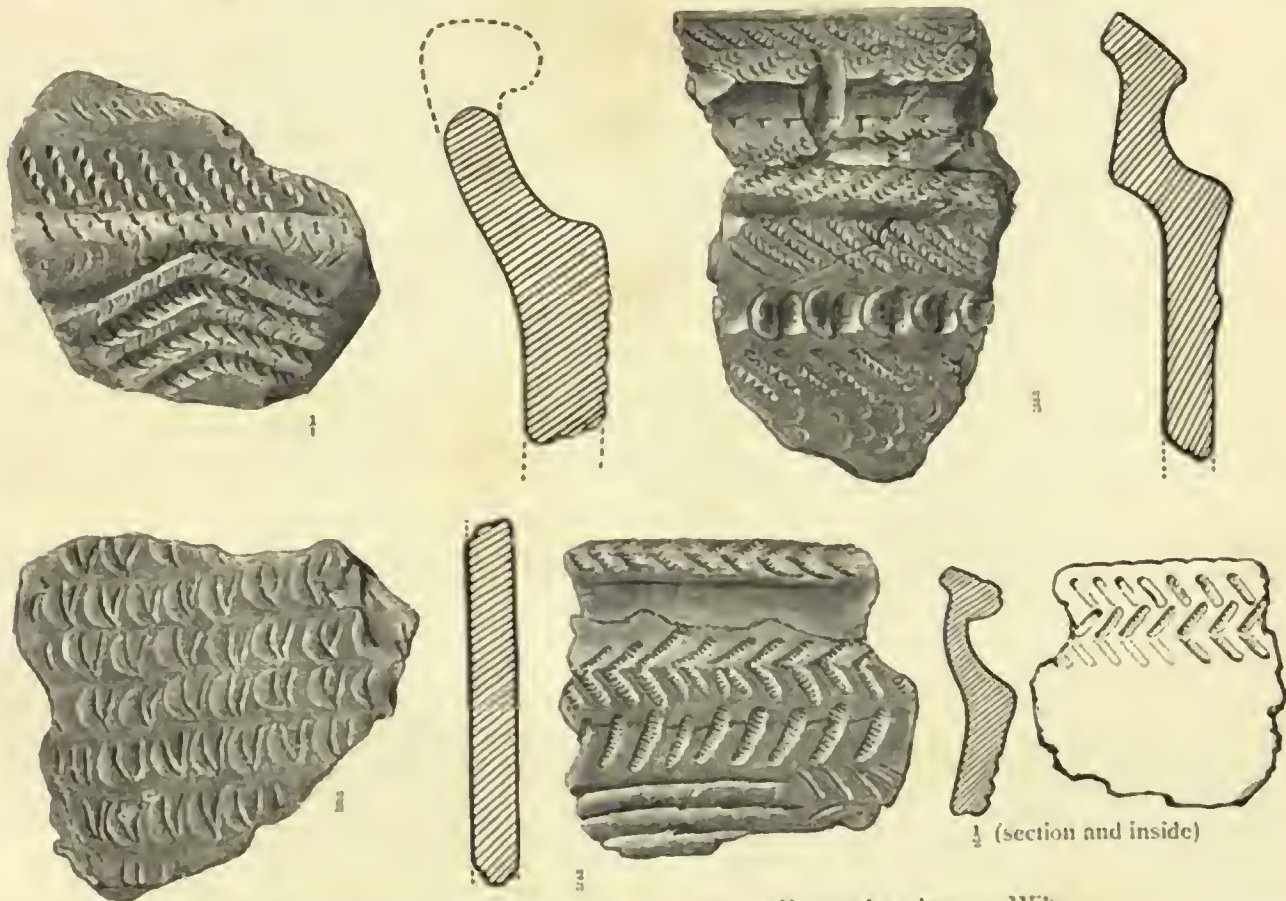


Fig. 7. Neolithic fragments, with sections, West Kennet long barrow, Wilts.

plete specimen in the British Museum from Châtillon, Switzerland (doubtless from a Bronze Age lake-dwelling), has nearly vertical sides, but dimensions in the same proportion: $7\frac{3}{4}$ in. at the mouth, and $2\frac{1}{4}$ in. high. These vessels were probably used like the modern colander, but the original form of the second exceptional fragment cannot be determined, though the incised lattice pattern of double lines on a burnished black surface points to the Early Iron Age or the Roman period.

¹ *Archæologia*, xxxviii. 415, figs. 8, 9.

Though the barrow was opened at a later date, it is worthy of remark that the contents were but partially disturbed, as was proved by the condition and order of the skeleton, and by the defined character of the layer of black matter immediately above them. Not a trace of burnt bone or other sign of cremation was met with, and there was a complete absence of metal or anything implying the use of it. Dr. Thurnam continues:

The quantity of coarse native pottery was very remarkable. At first it was thought that the heaps in the angles of the chamber would prove to be the fragments of vases deposited entire when the funeral rites were completed. This, however, was not the case, and whence the fragments came and why here deposited must be matter of conjecture. . . . That the fragments found in the chamber were those of domestic vessels required for the funeral feast is by no means clear; for in such case, had the mass of fragments been deposited, it would have been possible to reconstruct at least some of the vessels. As it is, the variety of form and ornament, of colour and texture displayed by them is even more remarkable than their number. In hardly more than three cases were two or more fragments of the same vessel met with. In stating that there were parts of not fewer than fifty different vessels, we shall probably be very much within the truth. They have been of every size, from that of a small salt-cellar to a vase holding a couple of gallons. . . . The ware appears to have been more profusely covered with ornament, impressed or scored, than the cinerary urns in the barrows of south Britain usually are. In this respect it assimilates more to the style of the "drinking-cups" of these barrows.

It does not seem likely from the account that any drinking-cups or beakers were represented among the fragments from this barrow, but in the light of recent discoveries in Haddingtonshire and at Peterborough, Thurnam's words seem almost prophetic; and now that the beaker is shown to have been a domestic as well as a sepulchral vessel, the marked difference in thickness between the hemispherical bowl and the earliest pottery of the round barrows has to be considered. The thinner vessels were more highly ornamented than the bowls, and practically their whole surface was covered with patterns, produced with a pointed or notched stick, or a disk with notched edges that revolved over the wet clay. The zones left plain are fairly narrow, whereas the lower half of the neolithic bowls was sometimes left unornamented. The latter type generally has a herring-bone pattern consisting of repeated impressions of a twisted thong, or possibly a shell; and above the hollow moulding, which was practically inaccessible, the decoration is continued on the lip and inside the rim, the upper edge having a series of sloping transverse lines.

There are, however, fragments of neolithic ware from the Peterborough pits that deviate from what may be considered the normal pattern. The most

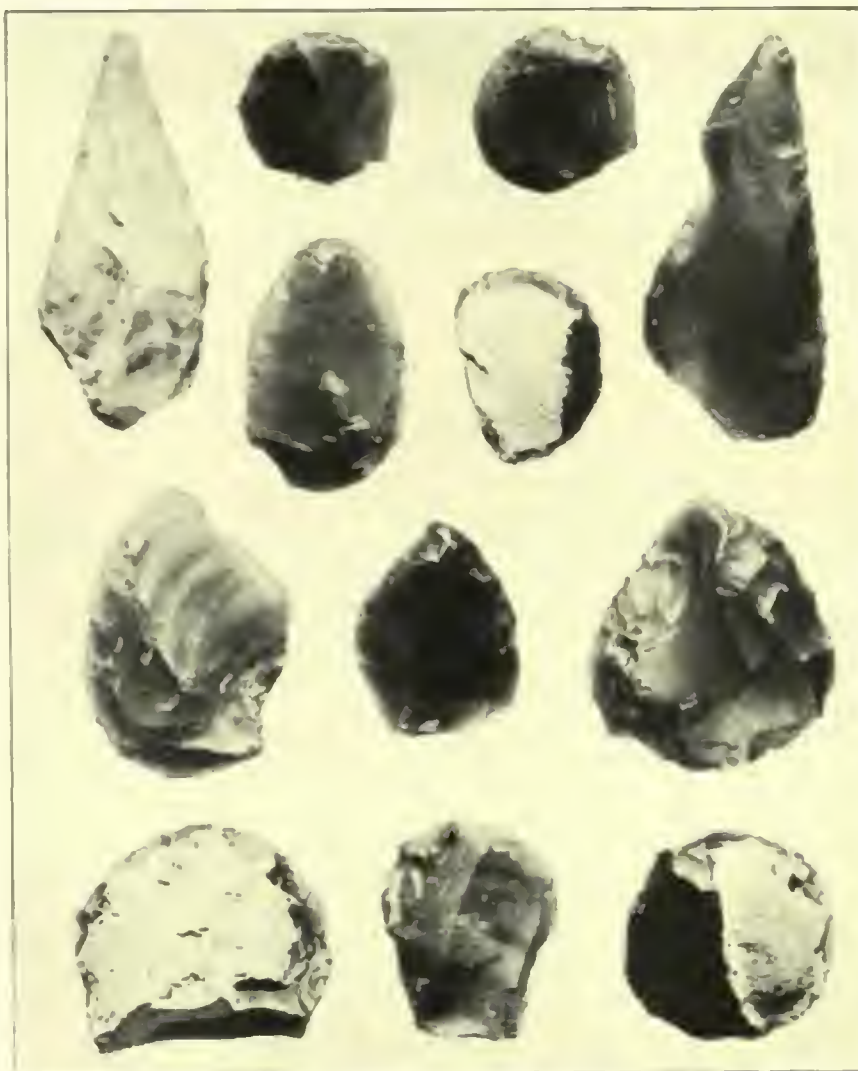


Fig. 1. Selection of Neolithic flints, Peterborough. 1



Figs. 2, 3. Neolithic bowls, from Thames at Mongewell, near Wallingford. 2

striking is a piece about 3 in. square of greyish ware (fig. 8), with enough curve to indicate a maximum outside diameter of $14\frac{1}{2}$ in. The paste is necessarily good for a vessel of that size, but comparatively thin, additional strength being derived from a thick moulding between the spaces filled with finger-nail pattern. The curve inside shows that from this point sprang the shoulder, and the vessel may have been constructed on the lines of a beaker.¹ Two other fragments of black ware with yellow faces show an in-turned rim, the exterior bearing finger-nail ornament, and the wall being set at the angle seen in the accompanying

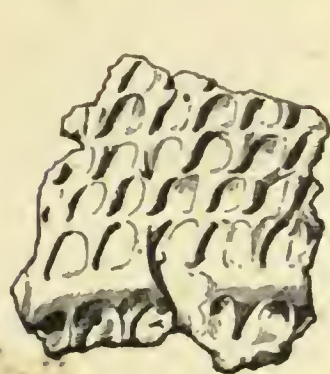


Fig. 8. Fragment of large drinking-cup (?) Peterborough. $\frac{1}{2}$.



Fig. 9. Fragments with in-turned rim, Peterborough. $\frac{1}{2}$.

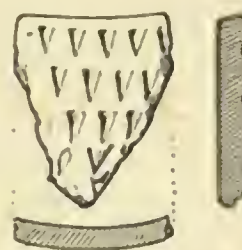


Fig. 10. Fragment with plain edge, Peterborough. $\frac{1}{2}$.



Fig. 11. Fragment with double groove, Peterborough. $\frac{1}{2}$.



Fig. 12. Pitted fragment with section and lip ornament, Peterborough. $\frac{1}{2}$.

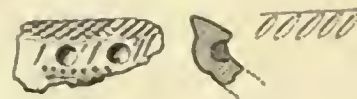


Fig. 13. Pitted fragment, with section and interior design, Peterborough. $\frac{1}{2}$.

section (fig. 9). Another (fig. 10) includes part of a plain upper edge with a similar impressed pattern in rows; and a larger fragment (fig. 11) furnishes a new variety with an outside diameter at the mouth of 10.2 in., the lip bevelled from within, and the outside ornamented with a deep impressed pattern that might be called a series of holes, with a double moulding below the lip-band. The paste is better than most and baked fairly hard, but the entire form must for the present remain uncertain. Two other fragments (figs. 12, 13) have not only

¹ Perhaps like one from Somersham, Hunts., $10\frac{1}{2}$ in. high, preserved in the Cambridge Antiquarian Museum. *Proc. Soc. Ant. Scot.*, xxxviii. 386, fig. 71.

incised ornament on the inner edge of the lip, but a row of deep circular indentations or pits outside; and the sections show peculiar varieties of lip which are no doubt contemporary, but do not correspond to the typical round-bottomed bowl.

The deep indentations below the lip of these last fragments are strongly suggestive of contemporary pottery found in Finland and certain parts of Sweden. In the former country many fragments have come to light with a herring-bone pattern in horizontal bands divided by rows of deep circular indentations, which are also common below the lip¹; while in Sweden the parallel is still more complete. A large quantity of sherds came from neolithic sites at Aloppe and Mjölkbö, Uppland, with simple impressed and incised patterns chiefly zigzag, and horizontal rows of pits: the top edges were also ornamented, and the bases uniformly rounded.² The fragments were generally small, but some evidently belonged to large vessels, and a few small cups were represented. Several vessels were contracted at the neck, with slightly spreading lip, and the decoration was almost exclusively on the upper part of the bowl, consisting of lattice design, impressed rings, and crescents. The paste had a certain proportion of quartz and felspar grit.

Neolithic pile-dwellings at Alvastra, on the eastern shore of Lake Vätter, have lately been investigated,³ and produced pottery in small fragments, with grit in the paste and much weathered. The ornamentation included rows of small or large pits, of circular or irregular shape, sometimes associated with horizontal zigzags. Two pieces illustrated have also decoration on the upper edge. They date from the period of the *gånggrifter* (chambered barrows dated by Professor Montelius 2500-2000 B.C.), and the site seems to have been a meeting-place of the South Scandinavian and East Swedish cultures. The pitted pottery is said to be characteristic of the latter area, which was inhabited by hunters and fishers, while in southern Scandinavia agriculture and domestic animals betokened a higher civilization.

The characteristic decoration of the drinking-cup or beaker is well known, and full justice has been done to the Peterborough series by our Fellow Mr. Praetorius, whose skilful reproduction of the patterns gives additional meaning and value to the series of fragments, and renders a detailed description unnecessary. The beaker has also been handsomely treated by Hon. John Abercromby, who has already published two fully illustrated papers⁴ on the type, and is about to

¹ Brügger, *Den arktiske Stenalder i Norge*, 136, 137, etc.

² *Fornvännen*, 1906, 101, figs. 8-26; cf. p. 257.

³ *Ibid.* 1910, 58, figs. 53, 73, 78-80.

⁴ *Journ. Anthropol. Inst.*, xxxii. (new ser. v), 373; *Proc. Soc. Ant. Scot.*, xxxviii. 323, with 172 figs. and map of distribution.

issue a new volume on the subject which will bring the British series into relation with the neolithic Schnurbecher and Zonenbecher of the Continent.

Apart from the beakers, some of which are of exceptional size but otherwise quite normal, the present discovery affords an opportunity of following the history of the round-bottomed neolithic bowl; and the accompanying illustrations (pl. XXXIX) will convey a better impression than any verbal description of what I take to be its development into the "food-vessel" of the barrows. It is true that beakers have been found in long barrows,¹ but the association of the bowls with that type of barrow is now established, and it will be admitted that the beaker is normally found in round barrows, and with unburnt bodies, occasionally with bronze objects. Much the same may be said of "food-vessels", though this type is often found with cremated remains, and seems to have passed through a time of transition in respect to burial rites. Beakers are occasionally found with food-vessels in the same grave (though not with the same body),² but they are quite distinct in form, material, and decoration. Certain food-vessels might almost be taken for neolithic bowls if they had a rounded base, and there appear to be intermediate links connecting these two forms. One more instance must be given in detail, as the discovery was evidently rather a puzzle to the excavators, and none of the usual names of sepulchral pottery seemed applicable. The vase (fig. 14) has been restored not altogether satisfactorily, and was presented to the British Museum by Dr. Greenwell. It is 4 in. high, the ware pinkish brown, fairly thin and hard, with a fair proportion of grit; and the ornamentation consists of curving but irregular groups of lines made with a toothed stick. This vase, which is also ornamented on the top edge, was found just above a stone chamber in a long barrow at Upper Swell, Glos.,³ but was considered by the excavators to have had no connexion with it and to be of considerably later date. Though the ware is comparatively thin and the bottom flat, the profile recalls that of the neolithic bowls, and is distinct from any recognized Bronze Age type.

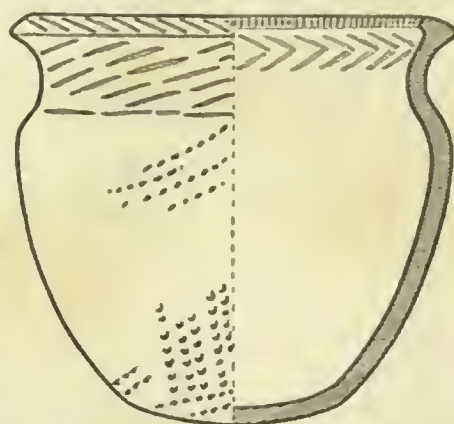


Fig. 14. Vase with section, Upper Swell long barrow, Glos. $\frac{1}{2}$.

¹ Examples in British Museum from Thurnam collection, found at Wilsford Down (*Archaeologia*, xliii. pl. xxxi. fig. 1), and Figcheldean, Wilts.

² This appears to be the case from Dr. Greenwell's tables in *British Barrows*, p. 458. and his additions in *Archaeologia*, lii. 1. Mr. J. R. Mortimer knows of no instance of the two types being found with the same body; when found in the same grave the drinking-cup is on a lower level (*Forty Years' Researches*, 223).

³ Greenwell, *British Barrows*, 523; *Journ. Anthropol. Inst.*, v. (1876), pl. v. fig. 3 (view of stone chamber above which it was found).

Irish "food-vessels" are often shallow in proportion to their diameter, and many have no well-defined foot, the lower portion being practically in one curve. One vessel (pl. XXXIX, fig. 1) found in a stone cairn in Ireland is cylindrical above and rounded at the base, and the same variation of the typical neolithic bowl has been found in chambered cairns in Bute and Argyleshire.¹ That this form passed almost insensibly into the "food-vessel" of the round barrows is suggested by the accompanying illustrations of specimens from Ireland in the British Museum, the exact sites being unfortunately not recorded. Certain finds in Scotland² suggest that a similar evolution went on in the south-west, but the series is at present not so complete as in Ireland.

The connexion between figs. 2-4 on the plate will hardly be questioned, the rounded base being flattened just enough to allow the latter to stand alone. In fig. 3 the mouldings are not so pronounced and are placed closer together, while the fourth specimen of the series has the mouldings somewhat bolder than before and reaches the true food-vessel type of the Bronze Age, tapering to a comparatively small base. The similarity of the ornament on all four vessels proclaims community of origin and no great difference of date; and it is significant that food-vessels are plentiful in Ireland, the ornamentation of the upper edge being retained throughout, and the profile gradually changing during the early days of bronze.

At present there seem to be no remains of typical "food-vessels" from domestic sites, though in view of recent discoveries it would be unwise to regard that type as exclusively or essentially sepulchral. That the "drinking-cup", a vessel as highly decorated, much thinner, and better made, was a household necessity as well as a desirable piece of grave furniture is now clearly demonstrated.³ The discovery of two neolithic bowls and two drinking-cups on the same spot in the bed of the Thames at Mortlake is curious, but not so convincing as two recent finds in Scotland, which I proceed to summarize.

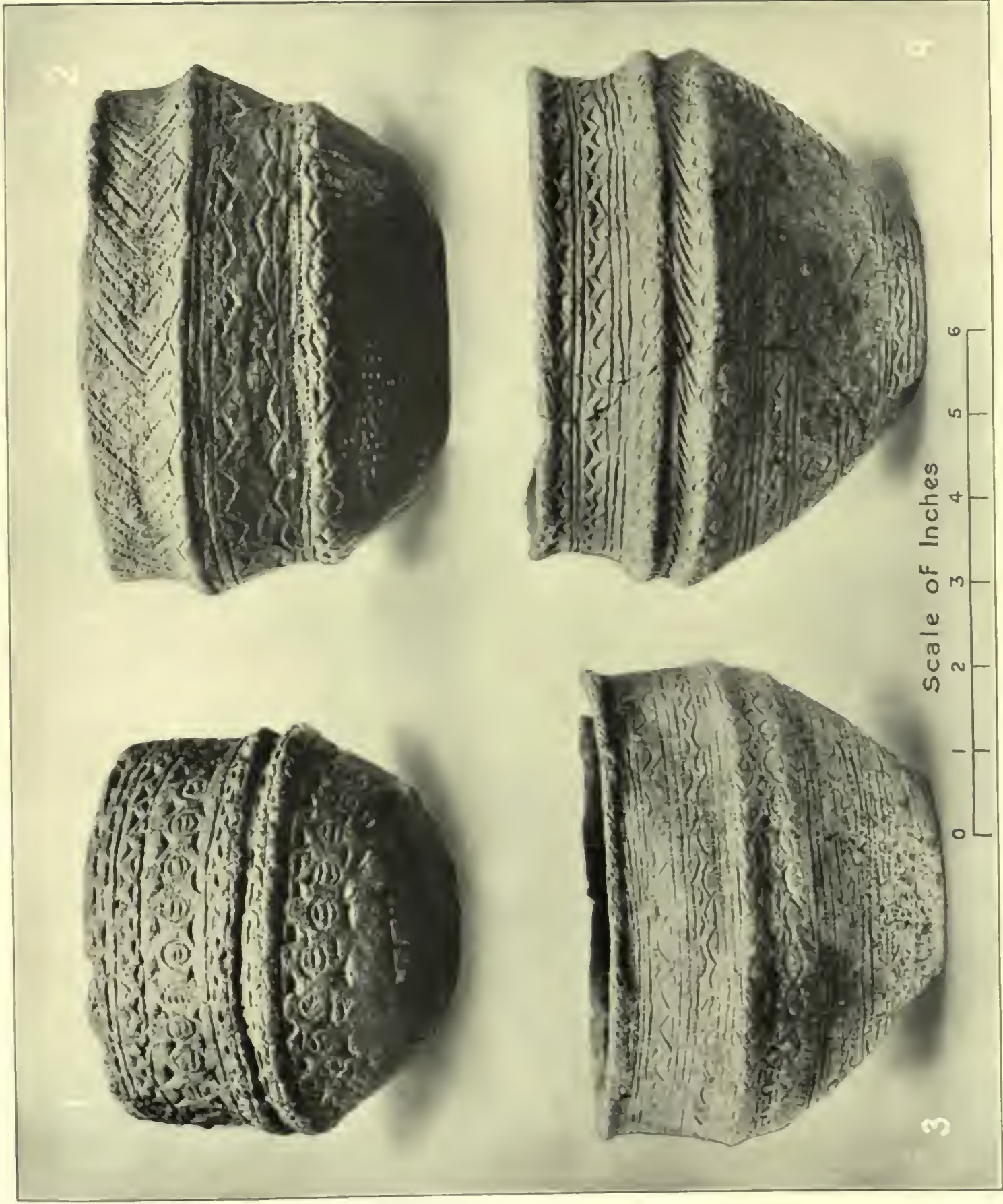
In November 1907 some kitchen-middens on the links fringing the shore on the east side of Gullane Bay, Haddingtonshire, were examined by Mr. Alexander Curle with interesting results.⁴ The middens were marked by accumulations of shells in the blown sand, and at three spots a quantity of pottery was

¹ See note *ante*.

² A somewhat globular example from Oban (Anderson, *Scotland in Pagan Times: Bronze and Stone Ages*, 85, fig. 106) has rings enclosing parallel lines like the round-bottomed bowl on pl. XXXIX; and the later form, with double moulding and indented chevrons, has been found at Kinneff, Kincardineshire, and Tormore, Arran (*ibid.* figs. 66 and 117).

³ It may be added that drinking-cups of type β were found in pits at Hitcham, Bucks., and are now in the British Museum. A brief account is given in *Maidenhead and Taplow Field Club Report*, 1890 1, 46.

⁴ *Proc. Soc. Ant. Scot.*, xlii. 308.



EVOLUTION OF FOOD-VESSELS IN IRELAND

Fig. 1. Neolithic bowl. Figs. 2, 3, 4. Bronze Age food-vessels

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found that could be readily grouped into two main classes, (1) thick coarse vessels of large diameter and (2) vessels of finer texture and smaller diameter, with decoration in repeating zones. Of the first class, fragments were collected representing five vessels of thick and heavy ware, three at least of which were cylindrical with raised mouldings either on the inside or outside of the lip (see figs. 4, 5 of original account). The diameters of this type were calculated to be roughly $9\frac{1}{2}$, $7\frac{3}{4}$, and 10 in.

The second class is represented by remains of no less than twenty-seven vessels, two of which could be sufficiently restored to show the original shape of at least their upper portions; and their identity with the so-called "drinking-cups" of Bronze Age burials is unmistakable (see figs. 6-9 of Mr. Curle's paper). There was the same decoration in repeating zones, the same combination of chevrons, diapers, and straight lines made with a pointed tool or a comb, or by impressing a twisted thong. The texture and thickness of the fragments also corresponded to the "barrow" type and the dimensions were analogous, though the measurements are not recorded. All those with corded pattern only and some of the other specimens had the lip bevelled, the slope being on the inside; while the remainder had a blunt lip of the same thickness as the body. None of this second ("drinking-cup") class showed the sooty incrustation or discoloration of the first class, characterized by its weight and thickness; nor were the two kinds found intermingled in all the middens. At the first spot examined no fine decorated ware except that with the corded pattern was found, whereas in the second midden, almost contiguous, there were no traces of the heavy ware. The third midden contained fragments of thin red ware decorated with the impressed thong or cord, three ornamented in the "drinking-cup" style, and one of the thick coarse ware of the first midden. The associated finds were few and unimportant, throwing very little light on the date of these rubbish-heaps except in a negative way, as no ancient metal was recovered; and it might therefore be argued that all these sherds belonged to the neolithic period, though the ornamented ware is certainly found elsewhere occasionally with bronze.

In the spring of 1907 a mediaeval paved floor was found at a depth varying from 14 in. to 4 ft. by Mr. James Cree, in his vegetable garden at Tusculum, North Berwick, Haddingtonshire; and further excavation resulted in the discovery beneath it of a prehistoric kitchen-midden consisting of a stratum about 1 ft. thick and about 8 ft. from the surface, extending over an area about 50 yd. by 12 or 15 yd. The site is about 250 yd. from the sea, and the abundance of whelk-shells indicates the principal food of the prehistoric inhabitants, though there were also large numbers of limpet and land-snail shells. A few bone tools, stone-pounders, and part of a hammer-head with the perforation begun on both faces, also some flint flakes and one good flint knife, throw further light on the

stage of civilization then reached in these parts, but the most important finds were fragments of pottery that can be approximately dated, and are quite in accord with the negative evidence afforded by the stone relics. Fragments of a bell- or tulip-shaped beaker ($6\frac{1}{2}$ in. outside diameter of lip) when pieced together showed the section except near the base, and the outside bore the usual ornamentation of horizontal lines practically covering the body. Other fragments, admirably illustrated in the original account,¹ belonged to straight-sided or at least to straight-lipped vessels, either of thin ware like the ordinary drinking-cup or beaker with horizontal lines, or of thick coarse ware with horizontal, crossed, diagonal, or vertical lines, and sometimes bevelled inside the lip. Altogether from this stratum no less than 734 fragments of pottery were recovered, none of large dimensions, but all referable to very distinct types. At a distance of 30 yards another midden was found, and proved over an area 64 ft. by 25 ft. It averaged 1 ft. in thickness and was 5 ft. from the surface. The finds were practically identical with those already described, but a few had a moulding or ledge a little below the rim, one at least had an incurved lip, and there were a few specimens of plain ware, fairly thick, with everted lips. Mr. Cree summarizes the pottery finds as follows:

All the potsherds from midden no. 1 were of fine texture, and none of great thickness. This can also be said of a considerable portion of the sherds found in midden no. 2. Generally speaking, only a few of the rims found in both middens were plain, the large majority being decorated. No fewer than 454 potsherds of various sizes and thicknesses were found in the excavation of midden no. 2. A number of these were of the impressed cord pattern, and were of similar thickness to those in midden no. 1. Numerous fragments however were of much coarser texture, some plain, others decorated, and it would thus seem that the two middens may not have been contemporaneous.

In the illustrations, however, there is little to confirm the author's suspicions that some of the fragments belonged to cinerary urns, as there were no signs of burials of any sort on the site, or of the overhanging lip that is so characteristic of Bronze Age cinerary urns. The many coincidences noticed in the paper are all in favour of the view that the two middens are contemporary or only separated by a brief interval of time. The uniformity of the majority is certainly striking, and the traces of soot on several specimens is proof enough that the so-called drinking-cup or beaker was used both for domestic and sepulchral purposes. The complete absence of metal in these layers was particularly noted; and this, combined with the rarity of bronze in connexion with beakers buried with the dead, suggests most strongly a very early date in the Bronze Age, or their attribution in Britain (as on the Continent) to the neolithic period.

¹ *Proc. Soc. Ant. Scot.*, xlii. (1907-8), 253.

We now seem to have something more than negative evidence with regard to the date of beakers in Britain, and the association with neolithic ware is all in favour of the introduction of the beaker into this country before bronze was in use on this side of the North Sea, though metal had become fairly common before the beaker passed out of fashion. It is tempting to suppose that the thin tall cups were introduced by strangers who first settled along our eastern coasts; but that in time the native tradition reasserted itself and a modification of the neolithic bowl took the beaker's place in the grave.

The map prepared by Hon. John Abercromby to show the distribution of the "drinking-cup" or beaker is justly considered by him to indicate its introduction across the North Sea, and its home may some day be determined with precision. The domestic finds in Haddingtonshire are actually on the sea-shore, and Peterborough was much nearer the sea 4,000 years ago than it is to-day. The number of sites diminishes towards the west; and, according to Mr. Coffey¹ who has specially examined the evidence, there is only one find of drinking-cups in Ireland, fragments of three or more having been found together at Moytirra, co. Sligo. On the other hand, "food-vessels" of a peculiar form, shallow, rounded, and highly ornamented, are common in South Scotland and Ireland, and do not occur elsewhere, though taller specimens, of conical form, are frequent in certain parts of England, as well as in Scotland and Ireland. An attempt has been made above to show that the intermediate links between the neolithic bowl and the Bronze Age "food-vessel" are represented by Irish examples; and the corollary seems to be that the indigenous neolithic population was driven westward by invaders from beyond the North Sea, and taking refuge in South Scotland, and Ireland developed, especially in the latter country, their traditional pottery type and in time reached the form that reappears on the east coast of Britain as the "food-vessel". The explanation of this revival may be that the invaders were by degrees absorbed or overwhelmed by the neolithic stock, and the imported type of pottery gave way to the native ware which had developed elsewhere in the meanwhile. Two thousand years later practically the same thing happened again: Celtic artists took refuge from the Roman advance and further developed in Ireland, during the first four centuries of our era, the art that British genius had evolved from the Early Iron Age of the Continent. Its renaissance in England followed in the late Anglo-Saxon period.

The "food-vessel" does not correspond to any known continental form, and

¹ *Journ. Anthropol. Inst.*, new ser. v. 397; Wood Martin, *Rude Stone Monuments of Ireland*, figs. 146-8. It should be noted that the only type found in Ireland is Mr. Abercromby's β type, corresponding to the Zonenbecher, tulip or bell-form beaker of the Continent, another indication that the beaker folk of our east coast never crossed St. George's Channel.

² The round-bottomed bowl, drinking-cup, and food-vessel were all found in cairns near Crinan, Argyleshire, by Dr. Greenwell (*Proc. Soc. Ant. Scot.*, vi. 341, pl. xx. figs. 1-3).

can now be regarded with some security as a native invention or development. Continental analogies may help us to determine the racial affinities of the "drinking-cup" folk who also belonged in part to the neolithic period, but there is a further problem, to determine the ethnological character of the aboriginal neolithic inhabitants of this country in the light of their pottery, their funeral rites, and skeletal peculiarities. To connect them with the earliest known inhabitants of what is now Finland, on the strength of some resemblance in the pottery of these two regions, would be premature and unwise; in fact, the Finnish theory has long ago been brought forward and dismissed. But pending further developments, there can be no harm in supposing that the neolithic population of our islands belonged to a stock that occupied the extreme north of Europe, possibly extending into Asia, and was distinct from the races of Central Europe. To inquire whether the former were the direct descendants of the palaeolithic hunters who followed the reindeer northwards is beyond the scope of this paper.

N.C.
B

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